

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

RECEIVED
SEP 17 1993

PRC

September 14, 1993

SITE ASSESSMENT SECTION



Ms. Jeanne Griffin
Work Assignment Manager
U.S. Environmental Protection Agency
Site Assessment Section
77 West Jackson Boulevard
Chicago, Illinois 60604

**Subject: Work Assignment No. 29-5JZZ
Screening Site Inspections**

Dear Ms. Griffin:

PRC Environmental Management, Inc. (PRC), is submitting the enclosed screening site inspection report (SSIR) for the following site in Toledo, Ohio:

Treasure Island - Manhattan Dump
OHD 980 611 305

As we discussed last week, the name of the site assigned in the statement of work (SOW) and its identification number is Manhattan Cleaners and OHD 981 529 092, respectively. (The site name in CERCLIS is Manhattan Dump.) PRC discovered during the site reconnaissance that a company called Manhattan Cleaners disposed of waste on part of the Treasure Island Landfill and that this portion is contiguous with and similar to other portions of the Treasure Island Landfill. In addition, both areas are owned by the city of Toledo.

The Ohio Environmental Protection Agency (OEPA) and PRC recommended that the two sites be combined and renamed, and per your approval, PRC conducted the SSI at the entire landfill. Accordingly, PRC recommends that the Manhattan Dump site be removed from CERCLIS, that the Treasure Island Landfill be renamed to match the enclosed SSIR, and that the name and identification number in the SOW be changed.

Please note that in 1987, a site inspection at the site was conducted by Ecology & Environment, Inc. (E & E). E & E included the Manhattan Cleaners portion of the site in its site figure, but no names other than Treasure Island Landfill were mentioned in E & E's report.

9/27/93
Told Cathy
to combine
JP

Ms. Jeanne Griffin
September 14, 1993
Page 2

Please also note that the transmittal memorandum, preliminary Hazard Ranking System (HRS) scoresheets, and NPL characteristics data collection form are not enclosed with the SSIR. PRC is awaiting information from a Ohio Department of Natural Resources (ODNR) biologist concerning endangered and threatened animal species in the vicinity of the site. Because this information is critical to the preliminary HRS score, PRC cannot submit the additional deliverables until this information becomes available. PRC was initially told by the biologist that the information was forthcoming, but the biologist discovered that the information request must be processed through an attorney in Columbus, Ohio. PRC will submit the above-listed documents as soon as the necessary information is received.

If you have any questions or comments concerning the site, please call me at (312) 856-8736, or Kris Kruk at (312) 946-6480.

Sincerely,



Julie Kaiser
Project Manager

Enclosure

cc: Carl Norman, EPA Project Officer (letter only)
Brigitte Manzke, EPA Contracting Officer (letter only)
Laura Fay, OEPA (disk copy of report)
Tina Baker, OEPA Northwest District Office
Majid Chaudhry, PRC Program Manager

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118



EXPANDED
SCREENING SITE INSPECTION REPORT

TREASURE ISLAND-MANHATTAN DUMP
2020 Manhattan Boulevard
Toledo, Ohio 43612

U.S. EPA ID NO.: OHD 980 611 305

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Site Assessment Section
77 West Jackson Boulevard
Chicago, IL 60604

EPA Work Assignment No.	:	29-5JZZ
EPA Region	:	5
Date Prepared	:	September 14, 1993
Contract No.	:	68-W8-0084
PRC No.	:	030-002968
Prepared by	:	PRC Environmental Management, Inc. (Kristine Kruk)
Contractor Project Manager	:	Julie Kaiser
Telephone No.	:	(312) 856-8700
EPA Work Assignment Manager	:	Jeanne Griffin
Telephone No.	:	(312) 886-3007

CONTENTS

<u>Section</u>	<u>Page</u>
1.0 INTRODUCTION	1
2.0 SITE BACKGROUND	2
2.1 SITE DESCRIPTION	2
2.2 SITE OPERATIONS AND HISTORY	7
2.3 PREVIOUS INVESTIGATIONS	7
3.0 SSI ACTIVITIES	8
3.1 SITE RECONNAISSANCE	8
3.2 SAMPLING LOCATIONS AND PROCEDURES	10
3.2.1 Groundwater Sampling Activities	14
3.2.3 Surface Water Sampling Activities	15
3.2.4 Sediment Sampling Activities	15
4.0 ANALYTICAL RESULTS	17
4.1 GROUNDWATER SAMPLING RESULTS	17
4.2 SURFACE WATER SAMPLING RESULTS	23
4.3 SEDIMENT SAMPLING RESULTS	24
5.0 PATHWAYS	25
5.1 GROUNDWATER MIGRATION PATHWAY	25
5.2 SURFACE WATER MIGRATION PATHWAY	26
5.3 SOIL EXPOSURE PATHWAY	27
5.4 AIR MIGRATION PATHWAY	28
REFERENCES	29

CONTENTS (Continued)

Appendix

- A POTENTIAL HAZARDOUS WASTE SITE-SITE INSPECTION REPORT
(FORM 2070-13)
- B PHOTOGRAPHIC LOG
- C 4-MILE RADIUS MAP

Attachment

- A REGIONAL WELL LOGS

FIGURES

<u>Figure</u>		<u>Page</u>
1	SITE LOCATION	3
2	SITE FEATURES	4
3	SAMPLING LOCATIONS	11

TABLES

<u>Table</u>		<u>Page</u>
1	SAMPLING SUMMARY	12
2	SUMMARY OF SURFACE WATER AND GROUNDWATER SAMPLE ANALYSES	18
3	SUMMARY OF SEDIMENT SAMPLE ANALYSES	20

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC), was tasked by the U.S. Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) at the Treasure Island-Manhattan (TIM) Dump site (latitude 41°40'30"N and longitude 83°31'30"W) under Contract No. 68-W8-0084, Work Assignment No. 29-5JZZ.

The primary objective of an SSI is to determine whether a site has the potential to be placed on the National Priorities List (NPL). The NPL identifies sites where releases or threatened releases of hazardous substances pose a risk to public health or the environment serious enough to warrant further investigation and possible remediation under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and the Superfund Amendments and Reauthorization Act of 1986 (SARA).

Information gathered during the SSI is used to generate a preliminary Hazard Ranking System (HRS) score. The HRS is the primary criterion U.S. EPA uses to determine whether a site should be placed on the NPL (U.S. EPA 1990). The SSI is usually the first investigation performed to collect and analyze environmental samples to support HRS scoring. Sampling locations are strategically chosen to identify hazardous substances present, to determine whether contaminants are being released to the environment, and to determine whether targets have been exposed to site-related contaminants.

Specifically, the objectives of the SSI are as follows:

- To collect data to evaluate sites using the HRS
- To screen out sites that are not eligible for the NPL based on their HRS scores
- To collect samples to establish representative background contaminant levels
- To document current site conditions
- To assess the need for emergency response actions

After the SSI report is finalized, U.S. EPA, in consultation with state authorities, will determine whether the site should undergo further investigation or should be designated "site evaluation

accomplished" (SEA). The SEA designation means that no additional investigations will be conducted based on information available at the time of the SEA designation. However, if new site information is brought to U.S. EPA's attention, the site may be re-evaluated. For sites warranting further investigation under CERCLA and SARA authority, either an expanded site inspection (ESI) will be conducted to collect additional data, or an HRS package will be prepared if existing data is sufficient to support a score of 28.50 or greater for proposal to the NPL.

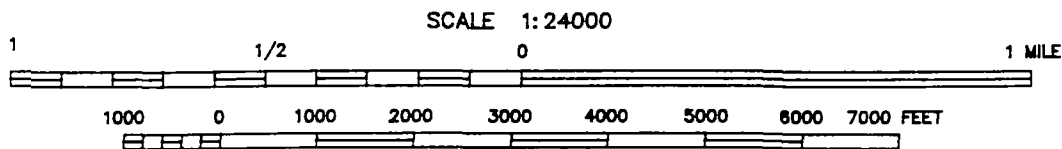
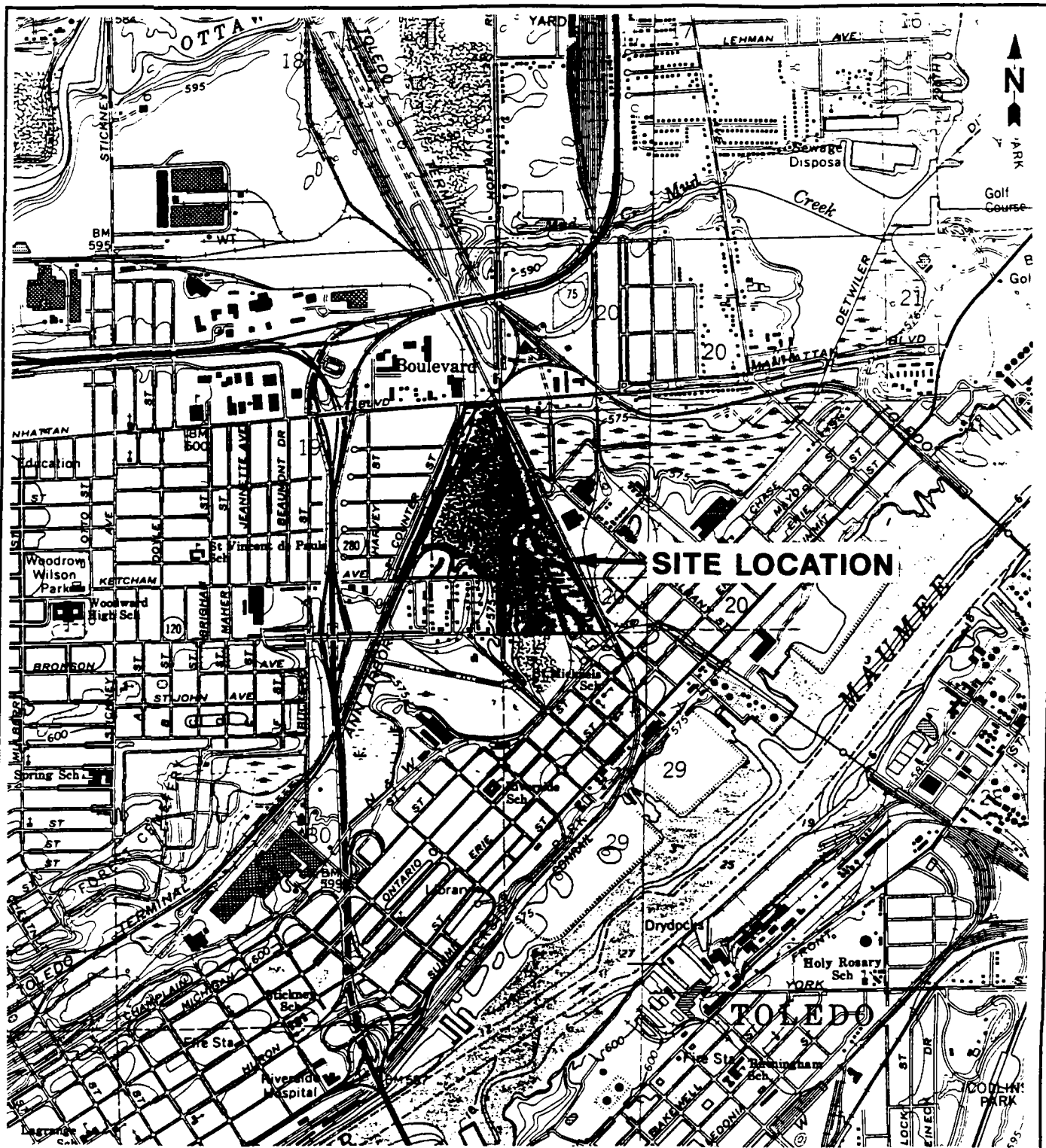
This report documents the results of an SSI conducted at the TIM Dump site in Toledo, Lucas County, Ohio. PRC first gathered and reviewed information from the Ohio Environmental Protection Agency (OEPA) and from U.S. EPA Region 5 CERCLA files. PRC then performed a reconnaissance of the TIM Dump on January 26 and 27, 1993. The inspection included an interview with the site representative and a walk-through inspection of the site. Based on information obtained during the site reconnaissance, PRC prepared a site-specific implementation plan (SSIP) and submitted the plan to U.S. EPA for approval. U.S. EPA approved the SSIP on March 2, 1993. During the SSI, PRC collected one groundwater sample, six surface water samples, and nine sediment samples on March 23 and 24, 1993.

2.0 SITE BACKGROUND

This section describes the TIM Dump site; site operations and history, including waste disposal practices; and previous investigations.

2.1 SITE DESCRIPTION

The TIM Dump site measures about 150 acres in size and is located at 2020 Manhattan Boulevard in Toledo, Lucas County, Ohio (see Figure 1). This inactive landfill originally consisted of the following three smaller landfills: (1) the Manhattan Dump, (2) the Treasure Island Dump, and (3) S.H. Tuber & Company (Tuber) Dump (see Figure 2). The northernmost 21 to 34 acres of the site comprise the former Manhattan Dump (OEPA 1986). Based on PRC's observations, the southernmost 30 to 40 acres comprise the former Tuber Dump, and the remaining 76 to 99 acres comprise the former Treasure Island Dump (Toledo 1993a and 1993b). The three landfills presently are collectively referred to as the TIM Dump. The site is bordered by Ketcham Avenue and William



SCALE: 1" = 2,000'



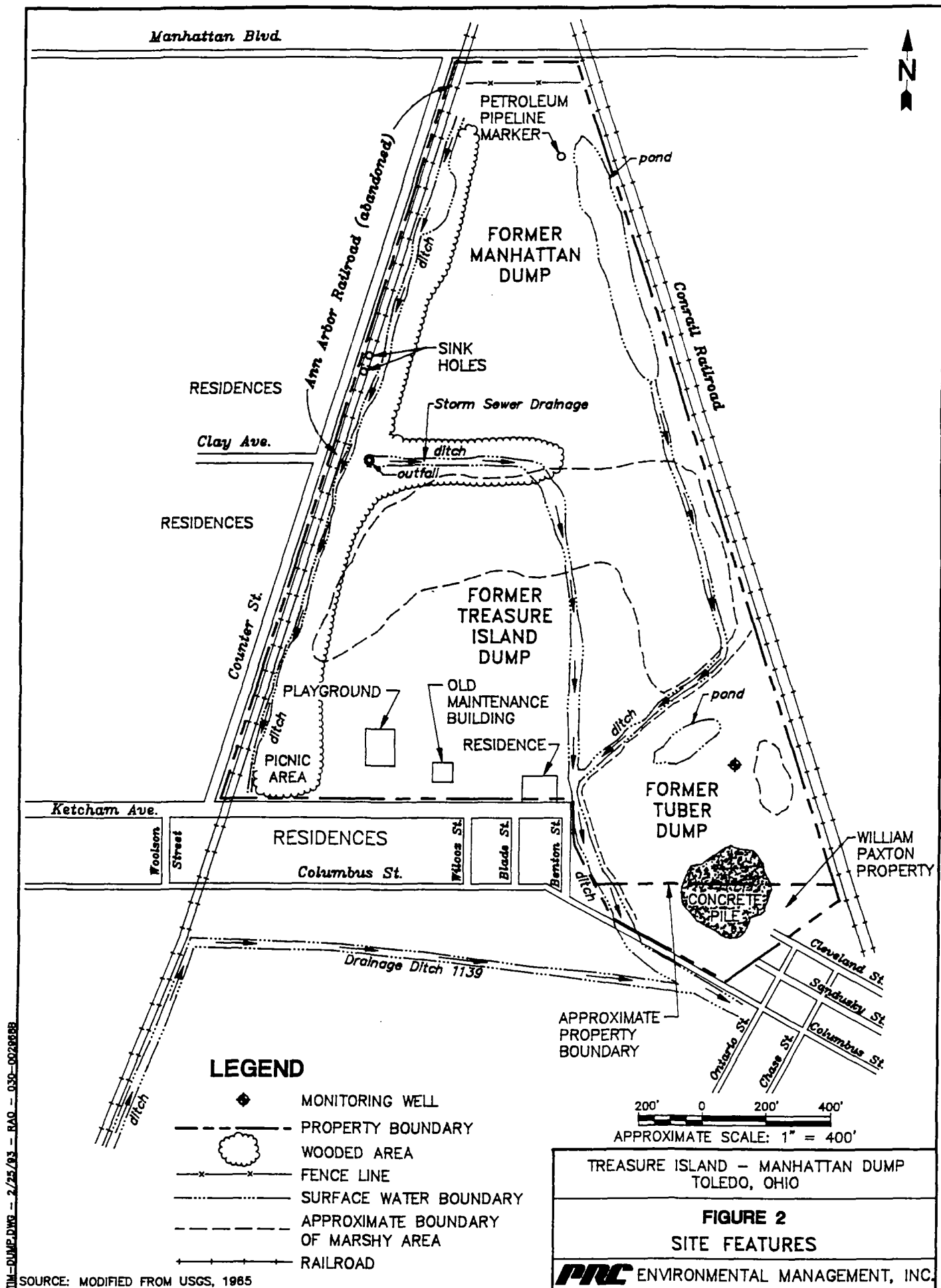
QUADRANGLE LOCATION
QUADRANGLES 1980

TREASURE ISLAND - MANHATTAN DUMP
TOLEDO, OHIO

FIGURE 1
SITE LOCATION

SOURCE: MODIFIED FROM USGS, TOLEDO, OHIO AND OREGON, OHIO QUADRANGLES 1980

PRC ENVIRONMENTAL MANAGEMENT, INC.



Paxton's concrete recycling facility to the south, abandoned Ann Arbor Railroad tracks to the west, Conrail (formerly Ann Arbor) Railroad tracks to the east, and Manhattan Boulevard to the north (Toledo Division of Traffic Engineering 1975; E&E 1987). Residences are located south of Ketcham Avenue and west of Counter Street, and one residence is located on site.

The highest point of bank elevation at the site is below the normal level of Lake Erie; therefore, prior to landfilling operations, the site was a wetland (FPS 1984). Much of the site, including the center, contains ponded, marshy areas, and portions have been delineated as wetlands (DOI 1977). A storm water drainage ditch flows through the center of the TIM Dump site (see Figure 2). Portions of the site along this drainage ditch are located within its 100-year flood plain (FEMA 1980). Elevated fill areas exist in the center of the former Manhattan and Tuber Dumps, and a city park, including a playground and picnic area, is currently located in the area of the former Treasure Island Dump. The fill within the former Manhattan and Tuber Dumps may be up to 15 feet deep, is heterogeneous in composition, and, although it was compacted by machinery, contains many voids (Kunkle 1971). Concrete, metal, asphalt, and wood were also observed throughout the fill area of the former Tuber Dump. Allegedly, Mr. Paxton's concrete recycling facility, which borders the site to the south, deposited construction debris on top of the former Tuber Dump fill area.

A monitoring well is present in the northeast portion of the fill area in the former Tuber Dump. This well was installed by Midwest Environmental Consultants, Inc. (Midwest), a contractor to the State of Ohio, as part of the Buckeye Basin Greenbelt Parkway (Parkway) project. The parkway is a proposed highway to be constructed by the Ohio Department of Transportation (ODOT). Current plans show that the parkway will run east-west along the Tuber Dump-William Paxton property boundary (PRC 1993b).

A 54-inch diameter storm sewer outfall from an adjacent residential area is located at the western border of the site near Clay Avenue. The storm sewer drainage ditch flows eastward until about the center of the site, where it turns and flows south until it converges with Drainage Ditch 1139 about 200 feet south of the site. A USGS topographic map identifies Drainage Ditch 1139 as intermittently flowing surface water body (USGS 1965). However, Drainage Ditch 1139 has been documented as a perennially flowing ditch (Toledo 1993c). Drainage Ditch 1139 enters an underground pipe lying beneath Columbus Street at a pumping station near the intersection of Columbus and Ontario Streets.

Ultimately, Drainage Ditch 1139 enters the Maumee River about 1 mile south of the site (PRC 1993a). A second ditch that also converges with the storm sewer ditch and consequently joins Drainage Ditch 1139 originates in the ponded area near the eastern border of the site and flows southward between the former Treasure Island and Tuber Dumps. A third ditch is located along the facility's western border. This ditch appears to terminate at the site's southern border; therefore, the ultimate outlet of this ditch is unknown (see Figure 2). These ditches drain the majority of the area of the site.

TIM Dump is bordered to the west and south by residences, to the east by an industrial area and residences, and to the north by an abandoned service station and a CSX Railroad terminal. The nearest residence is located on site near the intersection of Benton Street and Ketcham Avenue. Because the site is located in the City of Toledo, a highly populated urban area, the population density of the surrounding site area Toledo is about 190,948 persons within a 4-mile radius (Bureau of the Census 1990). Lake Erie, located about 2 miles west of the site, supplies drinking water to the Toledo area.

TIM Dump is underlain by about 100 feet of glacial till consisting predominantly of silty clay loam. The unconsolidated till is underlain by limestone (Kunkle 1971). Well logs from the area describe a variety of limestone, from blue to gray to brown (see Attachment A).

The climate of Lucas County is moderated by its proximity to Lake Erie. The average daily temperature is 49 °F. The lowest average daily temperature is 23 °F in January. The highest average daily temperature is 72 °F in July (USDA 1980).

The total annual precipitation for the county is 31 inches (USDA 1980). The mean annual lake evaporation for the area is 31 inches (DOC 1968). The heaviest 1-day, 24-hour rainfall from 1955 to 1975 was 4.34 inches in July 1969 (USDA 1980).

The prevailing wind is from the west-southwest at a maximum average wind speed of 11 miles per hour in April (USDA 1980).

2.2

SITE OPERATIONS AND HISTORY

Although the exact date that landfilling operations began at the site is unknown, the earliest documentation of such operations is dated March 1967 (Toledo 1967). Before 1973, Orville Bevel operated the Treasure Island and Manhattan Dumps (OEPA 1986). Tuber Dump was operated by Samuel Tuber (Tuber 1975). No operating records for the site are known to exist. However, indiscriminant dumping at the site before 1971 has been documented (ODNR 1971). Therefore, previous investigations indicate that both industrial and municipal wastes may have been disposed of at each of the landfills (see Section 2.3) (OEPA 1985 and 1986; U.S. EPA 1980 and 1981).

Dumping ceased at Treasure Island Dump in about 1968, at Manhattan Dump in about 1976, and at Tuber Dump, with the following exception, in about 1975 (E&E 1987; OEPA 1986; and Tuber 1975). William Paxton, the owner of the concrete recycling facility at the southern border of the site, reportedly illegally dumped construction debris in Tuber Dump for an unknown period of time until about 1990. During the reconnaissance visit, a site representative stated that the City of Toledo currently has a lawsuit pending against Mr. Paxton in regard to this illegal dumping.

The site consists of seven parcels of land deeded to the City of Toledo. The former Manhattan and Treasure Island Dumps are located on one parcel of land acquired by Toledo from William Elliott in 1976 (Toledo 1993a). The former Tuber Dump consists of six parcels of land acquired from Samuel Tuber in 1976, Michigan Central Railroad Company in 1973 and 1978, and Ann Arbor Railroad in 1981 (Toledo 1993b).

2.3

PREVIOUS INVESTIGATIONS

A preliminary assessment (PA) conducted by OEPA in 1986 for the Manhattan Dump states that the dump received about 2,000 cubic yards per day of wastes that included wood, rubber waste, household refuse, waste from service stations, industrial sludge and waste, car parts and tires, demolition materials, and alumina oxide powder. PAs for the Manhattan and Treasure Island dumps both state that underground chemical fires caused by incompatible wastes occurred on site in the early 1970s. According to the PAs, these fires burned for days (OEPA 1985 and 1986). However, the sources of this information are unknown. The PA for Manhattan Dump also states that leachate from

the landfill was observed entering a ditch, which flows to the Maumee River (OEPA 1986). In addition, a visual inspection conducted in 1989 identified leachate seeps and discolored snow on site (OEPA 1989).

In 1980, a Potential Hazardous Waste Site Identification form was filed as a result of a citizen complaint about chemical fires at the Manhattan Dump (U.S. EPA 1980). A CERCLA Notification of Hazardous Waste Site (103[c]) form was submitted by Owens-Illinois, Inc., Libbey Plant 27, a glass manufacturing plant operating about 1 mile southwest of the site since the late 1800s, for the Treasure Island Dump in 1981 (U.S. EPA 1981). This form lists unknown quantities of arsenic and heavy metals at the site. A PA conducted in 1985 and a site inspection (SI) conducted in 1987 for the site listed heavy metals, including arsenic, cadmium, chromium, and lead, and unspecified industrial wastes possibly disposed of on site (E&E 1987 and OEPA 1985). No samples were collected during the 1987 SI. According to site representatives, in 1991, the Toledo Department of Health and Environment sampled leachate seeping from the northeast corner of the former Tuber Dump fill area into the pond next to the fill's northern border.

3.0 SSI ACTIVITIES

This section outlines site reconnaissance observations and sampling locations and procedures at the TIM Dump site. Rationales for specific SSI activities are also provided in Section 3.2. The SSI was conducted in accordance with the U.S. EPA-approved SSIP dated February 26, 1993, and the U.S. EPA-approved generic quality assurance project plan (QAPjP) dated October 7, 1991. The U.S. EPA Potential Hazardous Waste Site Site Inspection Report form (Form 2070-13) for the TIM Dump site is provided in Appendix A. Photographs taken by PRC during the inspection activities are included in Appendix B.

3.1 SITE RECONNAISSANCE

PRC conducted a site reconnaissance at the TIM Dump site on January 26 and 27, 1993. The reconnaissance visit consisted of an interview with site representatives and a visual inspection.

The PRC field team, Jeanne Griffin of U.S. EPA; and Jeff Wander of OEPA conducted a walk-through inspection of the Treasure Island and Manhattan Dump portion of the site and the surrounding area on January 26, 1993. The following site representatives were also present during the site inspection: Alan Ruffell of the Toledo Department of Health and Environment, Lee Pfouts of the Toledo Pollution Control Division, and Mike Young of the Toledo Park District.

The PRC field team observed that the northeastern pond and the two drainage ditches along the western border of the site were covered with snow and ice. The two small western drainage ditches appeared to be connected in places and may be one ditch meandering beneath an old railroad easement. The storm sewer drainage ditch flowing through the center of the site was not frozen. Old tires, concrete blocks, bricks, metal, and old drums were scattered along and within the western drainage ditches and the storm sewer drainage ditch. Water in the western ditch was brownish. An oily sheen was also observed below the sewer drainage pipe outfall. About 30 feet north of the outfall, two apparent sink holes about 2 to 3 feet in diameter were observed. The southern portion of the former Treasure Island Dump along Ketcham Avenue is a picnic area and playground. Household rubbish was observed north of Ketcham Avenue near the western border of the site. Immediately northwest of the playground and picnic area, an area of open potholes and small mounds of soil was observed.

An elevated fill area is present in the center of the Manhattan Dump. The perimeter of the entire site is densely covered by brush and trees. A marshy area is present along the southern edge of the fill area. A petroleum pipeline marker was observed between the northeastern border of the fill area and the adjacent pond (see Figure 2). The site representatives explained that Sun Oil Company has an easement for an oil pipeline running north to south through the site.

Site representatives also explained that since the City of Toledo acquired the TIM Dump site property, a 6- to 12-inch-thick soil and clay cap was applied to all three dump areas. In 1980, the Toledo Edison Power Company received authorization to dump fly ash on the former Manhattan Dump area at the site. The fly ash was to be used as a base for the construction of a larger city park. During the 1987 SI, the Manhattan Dump was in the process of being covered with fly ash and landscaped (E&E 1987).

On January 27, 1993, the PRC field team and site representatives inspected the Tuber Dump portion of the site. Mr. Paxton's concrete recycling facility was observed immediately adjacent to the site's southern border. In an elevated fill area in the center of Tuber Dump, the PRC field team observed concrete, metal, asphalt, and wood. Mr. Paxton allegedly deposited the construction debris on top of the old Tuber Dump fill area. Ponded marshy areas were observed along the perimeters of the Tuber Dump. According to site representatives, in 1991, the Toledo Department of Health and Environment sampled leachate seeping from the northeast corner of the fill area into the pond next to the fill's northern border. Results of this leachate analysis were not provided by the site representatives. A monitoring well was also observed in the southeast corner of the fill area. The site representatives were unable to provide PRC with any information regarding this monitoring well. Subsequent investigations revealed that this monitoring well was installed by Midwest, a contractor to the State of Ohio, as part of the Parkway highway project (PRC 1993b).

Hiking trails and pathways were observed in wooded areas throughout the site. Site representatives stated that the site is used by nearby residents for recreational activities, including snowmobiling and motorcycling.

3.2 SAMPLING LOCATIONS AND PROCEDURES

On March 23 and 24, 1993, PRC collected one groundwater sample, six surface water samples, and nine sediment samples including one duplicate of surface water and sediment samples. The sampling locations are presented in Figure 3 and are summarized in Table 1. Sampling locations and collection procedures were in accordance with the U.S. EPA-approved SSIP, generic QAPjP, and applicable portions of PRC's standard operating procedures (SOP). PRC offered to split all samples with Alan Ruffell, site representative of the TIM Dump site. This offer was declined.

During the sampling investigation, the proposed sampling plan within the SSIP the for TIM Dump site submitted to U.S. EPA on February 26, 1993, was adhered to with the following exceptions. Duplicate samples (Samples No. SD-02D and SW-02D) were collected at SD-02 and SW-02. Sample No. SW-03, which the SSIP named as the surface water duplicate sample, was collected at the same location as Sample No. SD-03 within the pond in the northeast portion of the site.

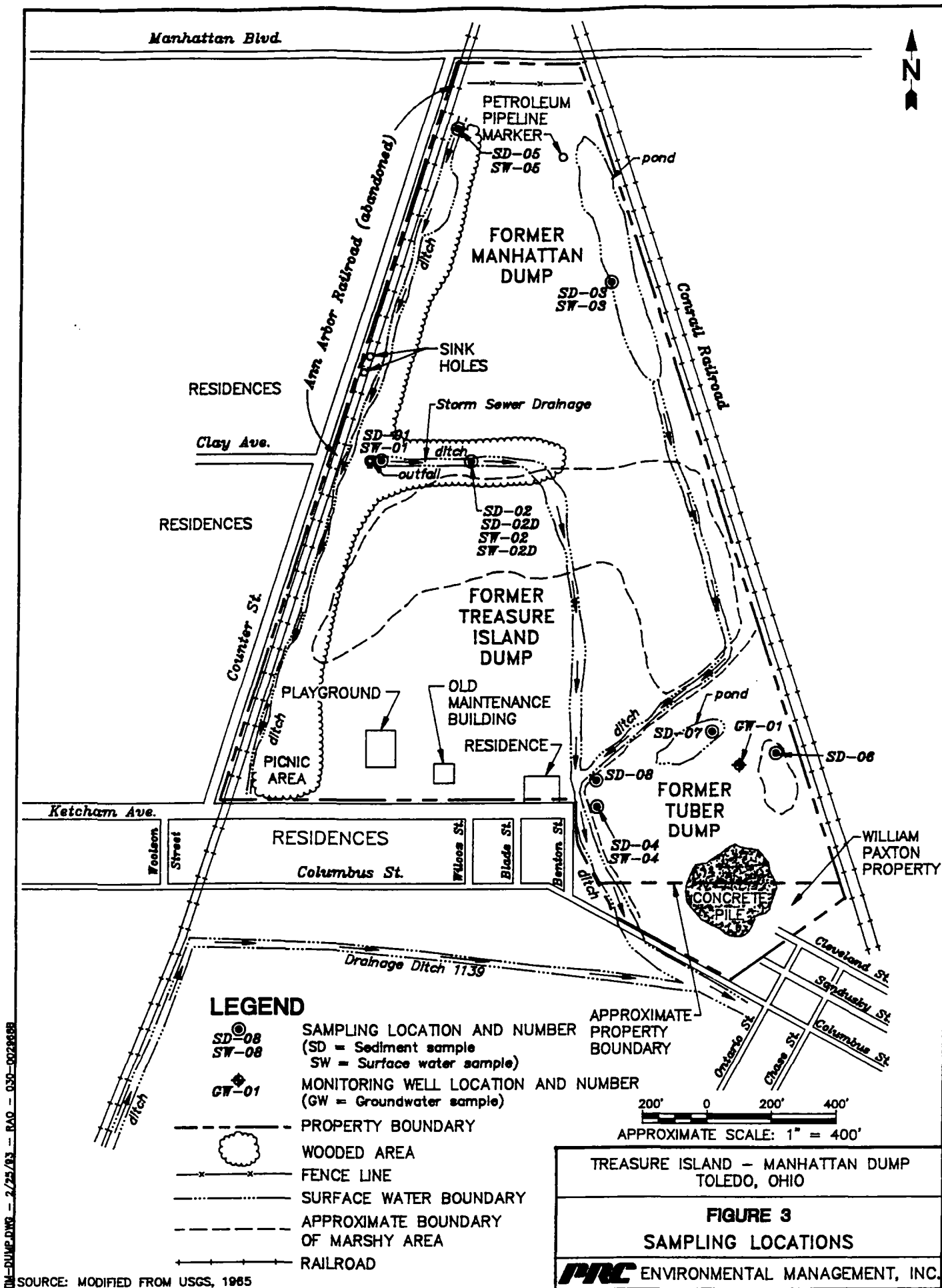


TABLE 1
SAMPLING SUMMARY

SAMPLE MEDIUM	SAMPLE NUMBER^a	LOCATION AND SAMPLING RATIONALE
Groundwater	GW-01	This sample was collected from an existing monitoring well located on the former Tuber Dump. This sample was collected to potentially identify hazardous substances deposited on site.
Surface Water and Sediment	SW-01 SD-01	These background samples were collected near the storm sewer outfall to determine concentrations of contaminants attributable to storm sewer runoff.
	SW-02 SD-02	These samples were collected from the drainage ditch to identify hazardous substances leaching from the landfill into the ditch. During the reconnaissance, a black discoloration, an oily sheen, and tire debris were observed in this area.
	SW-02D SD-02D	Duplicate samples of Samples No. SD-02 and SW-02D
	SW-03 SD-03	These samples were collected from a pond on site. An OEPA on-site investigation states that leachate was observed seeping into the pond in this area (OEPA 1989).
	SW-04 SD-04	These samples were collected from a potential wetland along the storm sewer drainage ditch near the western border of the former Tuber Dump area in order to determine if a release to the wetland has occurred.
	SW-05 SD-05	These samples were collected from the headwaters of the drainage ditch located at the site's western border along Counter Street.
	SD-06	This sample was collected from the eastern section of the former Tuber Dump area in a wetland in order to determine whether a release to the wetland has occurred.
	SD-07	This sample was collected from a potential wetland next to the fill area in the former Tuber Dump. During the reconnaissance, a site representative stated that the Toledo Department of Health and Environment sampled leachate in this area.

TABLE 1 (Continued)

SAMPLING SUMMARY

SAMPLE MEDIUM	SAMPLE NUMBER^a	LOCATION AND SAMPLING RATIONALE
	SD-08	This sample was collected from a potential wetland on site in the northwest corner of the former Tuber Dump site in order to determine if a release had occurred.

Note: a Sample numbers assigned for identification are presented in Figure 3. Actual sample numbers were assigned in the field in accordance with the U.S. EPA-approved generic QAPjP dated October 7, 1991.

Samples No. SD-05 and SW-05 were collected in the northwest corner of the site, at the headwaters of the ditch meandering along the western boundary of the site.

Samples No. SD-05 and SW-05 were chosen as potential background sampling locations because no off-site areas similar to the site were located, as proposed in the SSIP. However, because sampling results indicate that this area is also influenced by on-site contaminants, the samples collected from this area cannot be considered background samples. Samples No. SD-04, SW-04, and SD-06 were moved to locations where wetland vegetation (cattails) were observed. Sample No. SD-08 was also in an area where cattails were observed. Samples from this area were collected to determine if a release to potential sensitive environments had occurred (see Figure 3).

Groundwater, surface water, and sediment sampling activities are discussed below.

3.2.1 Groundwater Sampling Activities

On March 24, 1993, PRC sampled one shallow groundwater monitoring well during the SSI to identify hazardous substances associated with the TIM Dump site that may have migrated to groundwater. This monitoring well was installed by Midwest as part of the Parkway Project and is located in the eastern portion of the former Tuber Dump. Also on March 24, 1993, Cynthia Dunlap and John Kuskal of Midwest arrived on site to unlock the monitoring well. The Midwest representatives measured the water level within the well, which was 14.05 feet from the top of the well casing. Well depth was measured at 25.95 feet. Prior to sampling, the well was purged of three well volumes using a Teflon bailer. The sample was collected with a bailer and poured into the sample containers. A field rinsate blank was collected by pouring laboratory-grade water into a decontaminated bailer and transferring the water to the sample containers.

The monitoring well is constructed of flush-joint, schedule 40 polyvinyl chloride (PVC). The well screen is 7 feet long and has 0.010-inch, machine-slotted openings. The annular space around the well screen is filled with Ottawa-Silica sand to a height of about 2 feet above the top of the screen. Hydrated sodium bentonite fills the remaining annular space to a depth of about 1 foot below existing grade. A locking protector pipe is installed into the concrete at the ground surface. This monitoring well was constructed on October 29, 1992 (see Photograph No. 11) (Midwest 1993).

3.2.3 Surface Water Sampling Activities

PRC collected four surface water samples, Samples No. SW-01, SW-02, SW-02D, and SW-04, on March 23, and two surface water samples, Samples No. SW-03 and SW-05, on March 24, 1993. With the exception of Sample No. SW-01, samples were collected by dipping sample containers between 0.25 to 0.50 inch below water surface. Sample No. SW-01 was collected directly from the edge of the storm water outfall (see Photograph No. 2). At the time of sampling, the outfall was about 2 inches above the water level of the storm sewer drainage ditch below (see Photograph No. 2). Sample No. SW-01 is a background sample, which was collected to determine the concentrations of contaminants attributable to off-site storm sewer runoff.

Sample No. SW-02 was collected along the southern bank of the storm sewer drainage ditch about 200 feet downgradient of Sample No. SW-01 (see Photograph No. 1). Sample No. SW-02D was collected as a duplicate for Sample No. SW-02. Sample No. SW-03 was collected on the western bank of the northeastern pond. An OEPA on-site investigation states that leachate was observed seeping in the pond in this area. Sample No. SW-04 was collected from a potential wetland on the eastern bank of the sewer drainage ditch near the western border of the former Tuber Dump (see Photograph No. 4). Cattails were observed about 8 feet north of the location from which Sample No. SW-04 was collected.

Sample No. SW-05 was collected in the far northwest corner of the site near the headwaters of the drainage ditch located at the site's western border along Counter Street (see Photograph No. 9). The sampling location was about 100 feet south of the north border of the site immediately east of an old railroad easement within the drainage ditch. Because of its remote location, Sample No. SW-05 was to be considered a background sample. However, sample results indicate that contaminants from the site have influenced the area from which this sample was collected.

3.2.4 Sediment Sampling Activities

PRC collected four sediment samples, Samples No. SD-01, SD-02, SD-02D, and SD-04, on March 23, and five sediment samples, Samples No. SD-03, SD-5, SD-6, SD-07, and SD-08, on March 24, 1993. All samples were collected from surface water bodies using decontaminated

stainless steel scoops, spoons, and bowls. Sample No. SD-01 is a background sample collected along the south bank of the storm sewer ditch about 15 feet southeast of the storm sewer outfall (see Photograph No. 3). This sample was collected to determine concentrations of contaminants attributable to off-site storm water runoff. Sample No. SD-02 was collected along the southern bank of the storm sewer drainage ditch about 200 feet downgradient of where Sample No. SD-01 was collected (see Photograph No. 1). Sample No. SD-02D was collected as a duplicate for Sample No. SD-02. Sample No. SD-03 was collected on the western bank of the northeastern pond. An OEPA on-site investigation states that leachate was observed seeping in the pond in this area. Sample SD-04 was collected from a potential wetland on the eastern bank of the sewer drainage ditch near the western border of the former Tuber Dump (see Photograph No. 4). Cattails were observed about 8 feet north of the Sample No. SD-04 sampling location.

An OEPA on-site investigation states that leachate was observed seeping in the pond in this area. Sample No. SD-05 was collected from the far northwest corner of the site, near the headwaters of the drainage ditch located at the site's western border along Counter Street. The sampling location from which Sample No. SD-05 was collected is about 100 feet south of the north border of the site, immediately east of an old railroad easement, within the drainage ditch about 50 feet south of the location from which Sample No. SW-05 was collected (see Photograph No. 10). Because of its remote location, Sample No. SD-05 was to be a background sample. However, sample results indicate that contaminants from the site have influenced this area.

Sample No. SD-06 was collected about 15 feet off shore in the northeast portion of the pond located in the southeast corner of the site (see Photograph No. 6). This pond is delineated as a wetland on the national wetlands inventory map (DOI 1977). A "floating cattail island" was observed in the southern portion of this pond. Sample No. SD-07 was collected from a pond next to the northern border of the former Tuber Dump fill area. Wetland vegetation (cattails) were observed about 20 feet west of this sampling location (see Photograph No. 5). During the reconnaissance, a site representative stated that the Toledo Department of Health and Environment sampled a leachate seep in this area about 1.5 years prior to this investigation. Sampling results for the leachate seep were not available. Sediment east of Sample No. SD-07's sampling location contained many small rocks and other debris such as wood and metal. Sample No. SD-08 was collected from a potential wetland area in the northwest corner of the former Tuber Dump area (see Photograph No. 7). This area is

located near the confluence of the storm sewer drainage ditch and the drainage ditch that flows along the eastern border of the site. Large amounts of concrete and metal rubble were observed in this area.

4.0 ANALYTICAL RESULTS

All samples collected during the SSI were analyzed through the U.S. EPA Contract Laboratory Program (CLP). The laboratories analyzed the samples for U.S. EPA Target Compound List (TCL) volatile organic compounds (VOC), extractable semivolatile organic compounds (SVOC), pesticides, and polychlorinated biphenyls (PCB). The samples were also analyzed for Target Analyte List (TAL) inorganic substances (metals and cyanide). All data were reviewed by U.S. EPA Region 5 for compliance with the terms of the CLP. PRC added and deleted laboratory qualifiers based on the U.S. EPA data review narrative. The laboratory groundwater, surface water, and sediment sample results are summarized in Tables 2 and 3.

The concentrations of substances detected in the environmental samples were compared with background concentrations to determine which substances may have been released from the site. Several substances were detected at elevated concentrations and are highlighted as significant results in Tables 2 and 3.

A result was considered significant if the substance in question was detected significantly above the background level and was above the sample-specific contract-required quantitation limit or detection limit (CRQL or CRDL, respectively). Sample-specific CRQLs and CRDLs are determined by adjusting the CRQL or CRDL for percent solids and dilution factors for the sample. Groundwater, surface water, and sediment sampling results are discussed below.

4.1 GROUNDWATER SAMPLING RESULTS

Groundwater sampling results do not clearly indicate that hazardous substances attributable to waste disposal activities are present in groundwater in the vicinity of the monitoring well. Because groundwater is present at about 10 feet below ground surface on site, the groundwater sample was

TABLE 2
SUMMARY OF SURFACE WATER AND GROUNDWATER SAMPLE ANALYSES

Sampling Location		TI-SW01	TI-SW02	TI-SW02D	TI-SW03	TI-SW04	TI-SW05	TI-TB01	TI-GW01	TI-TB02	TI-FB01
Date		03/23/93	03/23/93	03/23/93	03/24/93	03/23/93	03/24/93	03/23/93	03/24/93	03/24/93	03/24/93
Time		1330	1230	1230	1300	1430	1400	1400	1200	1300	1245
Organic Traffic Report No.		ETF 19	ETF 20	ETF 21	ETF 16	ETF 22	ETF 17	ETF 27	ETF 18	ETF 34	ETF 33
Inorganic Traffic Report No.		MERS 84	MERS 85	MERS 86	MERS 92	MERS 87	MERS 93	N/A	MERS 98	N/A	MERS 85
Notes		S.W. BACK - GROUND	SURFACE WATER	DUPLICATE OF TI-SW02	SURFACE WATER	SURFACE WATER	SURFACE WATER	TRIP BLANK	GROUND WATER	TRIP BLANK	FIELD BLANK
VOLATILE ORGANIC COMPOUNDS	CRQL										
methylene chloride	10	1J	1J	1J	ND	2J	ND	ND	ND	ND	ND
chloroform	10	2J	1J	1J	ND	ND	ND	ND	ND	ND	ND
bromodichloromethane	10	1J	ND	ND	ND	ND	ND	ND	ND	ND	ND
<i>Tentatively Identified Compounds (Total)</i>	N/A	ND	ND	9J	ND	ND	ND	ND	13J	ND	ND
SEMIVOLATILE ORGANIC COMPOUNDS	CRQL										
di-n-butylphthalate	10	ND	ND	ND	ND	ND	ND	--	1J	--	ND
butylbenzylphthalate	10	ND	ND	ND	ND	ND	ND	--	2J	--	ND
<i>Tentatively Identified Compounds (Total)</i>	N/A	8J	38J	6J	39J	552J	4J	--	38J	--	ND
PESTICIDE/PCB COMPOUNDS	CRQL										
dieldrin	0.10	ND	.0015JP	ND	ND	ND	ND	--	ND	--	ND
4,4'-DDE	0.10	.0024JP	.0023J	ND	ND	ND	ND	--	.0078J	--	ND
gamma-chlordane	0.05	.0022JP	ND	.0019JP	ND	ND	ND	--	ND	--	ND
ANALYTE DETECTED	CRDL										
aluminum	200	231*	509*	509*	526*	203*	404*	--	154B*	--	122B*
arsenic	10	ND	ND	ND	ND	ND	21.3S	--	14.5	--	ND
barium	200	39.7B	43.2B	40.3B	19.0B	182B	39.7B	--	596	--	ND
cadmium	5	ND	ND	ND	ND	ND	2.6B	--	ND	--	ND
calcium	5,000	66900	43000	41600	32600	58300	53700	--	232000	--	585B
cobalt	50	ND	ND	ND	ND	ND	ND	--	6.1B	--	ND
copper	25	3.1B	6.2B	6.8B	14.9B	4.7B	11.4B	--	ND	--	ND
iron	100	215*	537*	558*	731*	364*	577*	--	8040*	--	22.4B*
lead	3	2.8BWJ	10.3J	15.5J	11.8J	16.5SJ	4.2J	--	ND	--	ND
magnesium	5,000	19400	14700	13900	9360	46600	13800	--	134000	--	ND
manganese	15	33.6	41.6	41.7	53.1	76.6	116	--	1840	--	2.1B
potassium	5,000	2410B	4860B	4350B	2920B	28100	4740B	--	33500	--	ND
sodium	5,000	51900	32200	31100	9480	64600	18600	--	98300	--	1650B
thallium	10	ND	ND	ND	ND	ND	ND	--	14.9W	--	ND
vanadium	50	ND	5.2B	ND	ND	ND	ND	--	4.7B	--	ND
zinc	20	12.3B	27.5	32.9	24.6	90.1	15.7B	--	ND	--	ND

TABLE 2 (continued)
SUMMARY OF SURFACE WATER AND GROUNDWATER SAMPLE ANALYSES

Notes:

All concentrations are in micrograms per liter (µg/L) unless otherwise noted.

XXX = Significant result

CRQL = Contract-required quantitation limit

CRDL = Contract-required detection limit

ND = Not detected

N/A = Not applicable

-- = Not analyzed

GENERAL QUALIFIERS	DEFINITION	ANALYTICAL BIAS
J	Value is estimated (also indicates a compound that is detected below the sample-specific CRQL).	May be high, low, or unknown.
COMPOUND QUALIFIERS	DEFINITION	ANALYTICAL BIAS
P	Variance between GC columns was greater than 25 percent in pesticide or Aroclor (PCB) analyses. The lower value is reported.	Unknown
ANALYTE QUALIFIERS	DEFINITION	ANALYTICAL BIAS
B	Value is below the sample-specific CRDL.	Unknown
W	Furnace AA post-digestion spike recovery values were outside of control limits.	May be high or low.
*	Duplicate relative percent difference values were outside of control limits.	Unknown
S	Analyte concentration was determined by Method of Standard Additions (MSA).	None

TABLE 3
SUMMARY OF SEDIMENT SAMPLE ANALYSES

Sampling Location		TI-SD01	TI-SD02	TI-SD02D	TI-SD03	TI-SD04	TI-SD05	TI-SD06	TI-SD07	TI-SD08
Date		1330	1230	1230	1300	1430	1415	1045	1015	1130
Time		03/23/93	03/23/93	03/23/93	03/24/93	03/23/93	03/24/93	03/24/93	03/24/93	03/24/93
Organic Traffic Report No.		ETF 23	ETF 24	ETF 25	ETF 28	ETF 26	ETF 29	ETF 30	ETF 31	ETF 32
Inorganic Traffic Report No.		MERS 88	MERS 89	MERS 90	MERS 99	MERS 91	MERS 94	MERS 95	MERS 96	MERS 97
Notes		BACK- GROUND		DUPLICATE OF TI-SD02						
VOLATILE ORGANIC COMPOUNDS	CRQL									
chloroform	10	2J	3J	3J	ND	3J	3J	ND	ND	5J
toluene	10	ND	ND	ND	ND	ND	ND	ND	ND	6J
SEMIVOLATILE ORGANIC COMPOUNDS	CRQL									
phenol	330	ND	110J	ND	ND	ND	ND	ND	110J	ND
2-methylphenol	330	ND	63J	ND	ND	ND	ND	ND	ND	ND
4-methylphenol	330	250J	140J	ND	ND	ND	170J	410J	ND	750J
2,4-dimethylphenol	330	ND	100J	ND	ND	ND	ND	ND	ND	ND
naphthalene	330	82J	190J	ND	230J	ND	ND	ND	ND	ND
2-methylnaphthalene	330	73J	210J	ND	280J	110J	ND	ND	ND	ND
acenaphthylene	330	ND	89J	ND	ND	ND	ND	ND	ND	ND
acenaphthene	330	380J	760	360J	74J	170J	ND	ND	ND	130J
dibenzofuran	330	180J	630	ND	120J	ND	ND	ND	ND	ND
fluorene	330	410J	840	420J	68J	190J	ND	ND	ND	150J
n-nitrosodiphenylamine	330	110J	ND	ND	ND	ND	ND	ND	ND	ND
phenanthrene	330	900	7500D	5500	810	1600	250J	110J	110J	1700
anthracene	330	930	1900	1200J	190J	380J	130J	ND	ND	350J
carbazole	330	350J	1100	560J	100J	140J	ND	ND	ND	270J
di-n-butylphthalate	330	58J	85J	ND	71J	ND	ND	ND	ND	120J
fluoranthene	330	4000D	10000D	8000	1100	2100	570J	140J	170J	2900
pyrene	330	8500D	12000D	10000	1100	2900J	580J	110J	140J	2000
butylbenzylphthalate	330	250J	ND	350J	ND	81J	ND	ND	ND	ND
benzo(a)anthracene	330	3500D	7700D	6100	810	1500J	500J	82J	89J	1500
chrysene	330	2700	5600D	4500	670	1100J	640J	93J	85J	1300
bis(2-ethylhexyl)phthalate	330	ND	ND	ND	89J	ND	140J	100J	100J	130J
di-n-octylphthalate	330	120J	62J	ND	ND	ND	91J	ND	ND	ND
benzo(b)fluoranthene	330	5800DX	9500DX	11000X	1000	2200X	1000X	180JX	150JX	2400X
benzo(k)fluoranthene	330	5800DX	9500DX	11000X	1100	2200X	1000X	180JX	150JX	2400X
benzo(a)pyrene	330	3200	4100DJ	5400	460J	890J	390J	79J	67J	990
indeno(1,2,3-cd)pyrene	330	2000	1000DJ	4900	510J	460J	360J	ND	ND	640J
dibenzo(a,h)anthracene	330	720	1200	460J	250J	77J	110J	ND	ND	280J
benzo(g,h,i)perylene	330	2100	4000	4000	500J	180J	310J	ND	ND	670J
Tentatively Identified Compounds	N/A	14030J	62970J	44200J	6210J	27310J	22350J	18660J	15690J	20640J

TABLE 3 (continued)
SUMMARY OF SEDIMENT SAMPLE ANALYSES

Sampling Location		TI-SD01	TI-SD02	TI-SD02D	TI-SD03	TI-SD04	TI-SD05	TI-SD06	TI-SD07	TI-SD08
Notes		BACK- GROUND		DUPLICATE OF TI-SD02						
PESTICIDES/PCB COMPOUNDS	CRQL									
alpha-BHC	1.7	ND	ND	ND	ND	ND	ND	.18JP	ND	ND
heptachlor epoxide	1.7	1.4JP	ND	ND	ND	1.6JP	1.1JP	ND	ND	ND
dieldrin	3.3	3.1JP	25P	50P	ND	1.2JP	2.3JP	ND	ND	1.1JP
4,4'-DDE	3.3	3.6JP	ND	1.3JP	480PC	3.3JP	45	78PC	430PC	7.2JP
endrin	3.3	.73JP	5.4JP	17	ND	.59JP	ND	ND	ND	2.9J
endosulfan II	3.3	ND	1.1JP	3.0JP	ND	.64JP	ND	ND	ND	ND
4,4'-DDD	3.3	19P	4.1JP	6.6P	270	ND	14	12	14JP	47
endosulfan sulfate	3.3	.51JP	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	3.3	14P	11P	18P	250C	28P	35P	27	280C	45P
methoxychlor	17.0	12JP	50P	120P	18JP	24JP	23JP	5.4JP	26JP	11JP
endrin ketone	3.3	8.9P	12P	ND	7.6JP	11P	ND	ND	ND	ND
alpha-chlordane	1.7	5.9P	11	15	ND	2.2JP	ND	ND	ND	1.4JP
gamma-chlordane	1.7	11	16P	34P	ND	6.4P	ND	ND	ND	2.4JP
ANALYTE DETECTED (mg/kg)	CRDL									
aluminum	40	6770J	13900J	16500J	9910J	9940J	10400J	12900J	14000J	6140J
arsenic	2	6.2N*	69.3SN*	104SN*	21.6SN*	5.7N*	30.5N*	8.7N*	8.5N*	5.1N*
barium	40	130	397	464	73B	139	73.3B	81.7	71.6	245
beryllium	1	.39B	.71B	.81B	.92B	.46B	.66B	.66B	.75B	ND
cadmium	1	ND	13.8	17.8	ND	ND	1.7EB	1.5EB	ND	ND
calcium	1,000	50500J	31000J	32500J	7090J	10000J	19200J	4470E	5550J	22800J
chromium	2	16.4*	52.5*	78.9*	21.1*	15.8*	19.7*	20.5*	22.2*	11.2*
cobalt	10	5.6B	12B	15.2B	10.6JB	5.1B	11.6B	10.5B	10.5	ND
copper	5	42.4J*	172J*	189J*	160J*	19.4J*	42.3J*	360J*	29.4J*	24.1J*
iron	20	15600E*	40500E*	44000E*	38300E*	14400E*	19600E*	18100E*	19800E*	9310E*
lead	0.6	218	1040	947	114W	178	55.9	209	42.8	482
magnesium	1,000	18600	11700	12300	2950	4760	10400	3880	4530	7700
manganese	3	316J*	608J*	614J*	319J*	193J*	172J*	325J*	286J*	164J*
mercury	0.1	ND	.50	.46	ND	ND	ND	ND	ND	.50
nickel	8	17.5	53.5	60.5	22.6	13.6B	19.3B	17.6	23.8	3.8B
potassium	1,000	1370B	2660	3500	1400B	1770B	2440B	2600	3270	1160B
selenium	1	.72B	ND	.57B	1.1B	ND	1.5B	ND	ND	.57B
sodium	1,000	387B	438B	686	323B	454B	352B	231B	259B	605B
thallium	2	ND	1.1B	1.2B	1.1B	ND	ND	.45B	.57BW	ND
vanadium	10	18.9	35.5	43.4	25.6	26.1	26.1B	31.1	32.2	ND
zinc	4	255J	952J	1160J	147J	283J	482J	149J	92.1J	617J

TABLE 3 (continued)
SUMMARY OF SEDIMENT SAMPLE ANALYSES

Notes:

All concentrations are in micrograms per kilogram ($\mu\text{g/kg}$) unless otherwise noted.

CRQL = Contract-required quantitation limit. The listed CRQLs assume 100% solids concentration in the sample. Sample-specific CRQLs are determined by dividing the listed value by the actual percent solids concentration in the sample (and, if applicable, multiplying by dilution factors).

CRDL = Contract-required detection limit. The listed CRDLs assume 100% solids concentration in the sample. Sample-specific CRDLs are determined by dividing the listed value by the actual percent solids concentration in the sample (and, if applicable, multiplying by dilution factors).

XXX = Significant result

ND = Not detected

N/A = Not applicable

-- = Not analyzed

GENERAL QUALIFIERS	DEFINITION	ANALYTICAL BIAS
J	Value is estimated (also indicates a compound that is detected below the sample-specific CRQL).	May be high, low, or unknown.
COMPOUND QUALIFIERS	DEFINITION	ANALYTICAL BIAS
P	Variance between GC columns was greater than 25 percent in pesticide or Aroclor (PCB) analyses. The lower value is reported.	Unknown
C	Identity of pesticide/PCB compound was confirmed by GC/MS.	None
D	Compound was identified at a secondary dilution factor.	None
X	Result cannot be confirmed by CLP protocols – compound may or may not be present.	Unknown (value is unusable).
ANALYTE QUALIFIERS	DEFINITION	ANALYTICAL BIAS
B	Value is below the sample-specific CRDL.	Unknown
E	Value is estimated due to matrix interferences.	Unknown
N	Matrix spike percent recovery values were outside of control limits.	May be high or low.
W	Furnace AA post-digestion spike recovery values were outside of control limits.	May be high or low.
*	Duplicate relative percent difference values were outside of control limits.	Unknown
S	Analyte concentration was determined by Method of Standard Additions (MSA).	None

collected to aid in the identification of on-site contaminants. Because TCL organic substances are not naturally-occurring, elevated concentrations of organic compounds in the groundwater sample could identify site-related contaminants. However, no organic substances other than tentatively-identified compounds (TIC) were detected at significant concentrations.

Elevated concentrations of many inorganic substances, including arsenic, barium, calcium, iron, magnesium, manganese, potassium, sodium, and thallium were detected in the groundwater sample and may be attributable to site activities. However, these substances are naturally-occurring, and no background groundwater sample was collected. Therefore, inorganic substances in the sample cannot be attributed to the site. No background sample was collected because no upgradient monitoring wells exist. In addition, no residential wells exist in the area of the site because all residents are served by municipal water supply from Lake Erie.

4.2 SURFACE WATER SAMPLING RESULTS

Analytical results of surface water samples indicate that potassium and zinc have been released to the on-site storm sewer drainage ditch and that arsenic and manganese have been released to the drainage ditch on the northwest corner of the site. Significant findings for surface water sample analyses include arsenic and manganese in Sample No. SW-05 and potassium and zinc in Sample No. SW-04. These analytes are attributable to the site because the contaminant concentrations are significantly above background levels and sample-specific CRDLs. Also, a CERCLA Notification of Hazardous Waste Site (103[c]) form and a PA form indicate that arsenic and heavy metals were deposited at the site (U.S. EPA 1981; OEPA 1985). No organic compounds other than TICs in Sample No. SW-04 were detected at elevated concentrations. Because the identity of TICs cannot be confirmed, they are not considered significant findings.

PRC added "J" qualifiers to the laboratory analytical results for lead in all samples because the U.S. EPA QA/QC data review narrative states that these results were estimated because the relative percent difference of the field duplicates (Samples No. SW-02 and SW-02D) was out of the acceptable range. A "W" qualifier was added to the lead result for Sample No. SW-01 because the U.S. EPA data review narrative states that the result should be flagged because of interference. The bias of the data cannot be determined because the raw data for the Furnace AA post-digestion spike recovery were not

provided by the laboratory. Although the lead data is qualified, it is possible that lead has been released from the site because concentrations in downgradient samples are significantly above the background level.

4.3 SEDIMENT SAMPLING RESULTS

Analytical results of sediment samples indicate that two SVOCs, six pesticides, and five metals have been released from the TIM Dump site to surrounding ditch and wetlands. Significant findings for sediment sample analyses include dibenzofuran in Sample No. SD-02, endrin and gamma-chlordane in Sample No. SD-02D, and phenanthrene, dieldrin, methoxychlor, barium, cadmium, chromium, lead, mercury, and nickel in Samples No. SD-02 and SD-02D. In addition, elevated concentrations of 4,4'-DDE were detected in Samples No. SD-03, SD-05, SD-06, and SD-07, 4,4'-DDD was elevated in Sample No. SD-03, and 4,4'-DDT was elevated in Samples No. SD-03, SD-07, and SD-08. These substances are attributable to the site because the contaminant concentrations are significantly above background levels and sample-specific CRQLs and CRDLs. Also, the CERCLA Notification of Hazardous Waste Site (103[c]) form indicates that heavy metals were deposited at the site (U.S. EPA 1981).

PRC added the "J" qualifier to all pesticide results in Table 3 to indicate that the pesticide results are estimated. The qualifier was added because the U.S. EPA data review narrative states that surrogate recoveries were above acceptable limits and the data is biased high as a result. Although reported pesticide results are overestimated, the highlighted results are considered significant because these concentrations are equal to or exceed ten times the background levels. Because the concentrations in downgradient samples are significantly above background levels, these pesticides are attributable to the site. Analytical results indicate that discarded pesticide products may have been deposited at the site.

PRC deleted the "*" qualifier from the laboratory's reported results for aluminum, lead, and zinc because the U.S. EPA narrative states that relative percent difference (RPD) values for duplicates were within acceptable limits. In addition, PRC added the "J" qualifier to aluminum, calcium, copper, manganese, and zinc results because of interference and poor precision, as reported in the U.S. EPA narrative.

Barium, cadmium, chromium, lead, mercury, and nickel were detected at elevated concentrations in Samples No. SD-02 and its duplicate, Sample No. SD-02D. The chromium results were flagged with the "*" qualifier because the RPD between these two field duplicate sample results is higher than the acceptable limit. PRC is considering these results significant because the samples were not homogenous, and varying grain sizes may be responsible for the high RPD.

PRC added the "J" qualifier to laboratory analytical results for cobalt in Sample No. SD-03 because the U.S. EPA narrative states that the result was estimated because of contamination. The "J" qualifier was also added to cadmium results for Samples No. SD-06 and SD-07 because of contamination.

5.0 PATHWAYS

This section discusses the groundwater migration, surface water migration, soil exposure, and air migration pathways.

5.1 GROUNDWATER MIGRATION PATHWAY

Groundwater in the area may be affected because no record indicates that a liner was ever installed on site. The one monitoring well sample collected during the SSI does not indicate that a release to groundwater has occurred because no background sample could be collected. However, drinking water is supplied to the population within 4 miles of the site by municipal surface water intakes in Lake Erie (OEPA 1990). Several private well logs from the area were discovered (see Attachment A). However, no drinking water wells screened in the upper aquifer are known to be currently in use in the City of Toledo (PRC 1993d). Two drinking water wells screened at least 100 feet below ground surface in the bedrock aquifer are currently in use in the City of Toledo. One well is located at a home about 6 miles southwest of the site and one is located at Collingwood Water Bottling Company (Collingwood) located about 3 miles west of the site (PRC 1993d). Collingwood's well is screened at 675 feet below ground surface. The well water is tested daily by Collingwood and weekly by the County Department of Health. Collingwood filters its water to remove solid minerals and ozonates the bottled water to kill bacteria. The bottled water is sold to about 7,000 clients in

Toledo and the surrounding areas (PRC 1993e). Industrial wells are also known to exist in the City of Toledo (PRC 1993f).

5.2 SURFACE WATER MIGRATION PATHWAY

A release to the on-site storm sewer ditch, the wetland on the southeast corner of the site, and other potential wetland areas on site has been confirmed by chemical analysis of surface water and sediment samples. Significant findings are discussed in Section 4.0 and include heavy metals in the storm sewer ditch sediment and metals and pesticides in potential wetland surface waters and sediments. Because no liner, leachate collection system, maintained engineered cover, or functional and maintained run-on control system and runoff management system are present on site, and because hazardous substances have been detected above background levels, contaminants appear to have migrated from the disposal areas into nearby surface water bodies.

Targets of on-site surface water and sediment contamination include wetlands that have either been identified as such by the U.S. Department of the Interior (DOI) or have been preliminarily identified by PRC. The marshy area on the southwest corner of the site where Sample No. SD-06 was collected has been delineated as a vegetated wetland (DOI 1977) and PRC observed cattails along the drainage ditches at sample locations SD-04 and SD-08 and in the ponded area at sample location SD-07. The vegetation adjacent to the open pond near sample location SD-03 was not obviously wetland-dependent, and wetland vegetation was not evident at sample location SD-05.

Additional targets of on-site surface water and sediment contamination include three federal endangered and 13 state endangered bird species that utilize inland waterways and wetlands during spring and fall migrations (PRC 1993c). Three of these species are also federally endangered (ODNR 1993). Although these species have not been observed at the site, they are known to occur in Toledo. TIM Dump site can provide appropriate habitat, and therefore these species are likely to use the on-site ditch and wetlands. Also, potential targets include 16 frontage miles of wetlands along North Maumee Bay and Lake Erie about 5 to 9 and 10 to 13 miles, respectively, downstream of the site.

The on-site storm sewer ditch is known to flow continuously and converges with intermittent Drainage Ditch 1139 about 200 feet south of the site (Toledo 1993c). Drainage ditch 1139 flows

underground at Columbus and Ontario Streets and enters the Maumee River about 1 mile downstream of the site. The Maumee River, which flows northeastward, is a large river with a flow rate of 5,000 cubic feet per second (OEPA 1990). The Maumee River flows into the Maumee Bay of Lake Erie about 3 miles downstream of its confluence with Drainage Ditch 1139.

Targets of potential contamination from the TIM Dump site included the 464,000 people served by the city of Toledo drinking water intake and 25,000 people served by the City of Oregon drinking water intake, both located about 14 miles downstream of the site in Lake Erie (OEPA 1990).

Potential targets also include fisheries in the Maumee River and Lake Erie. The Maumee River is used for sport fishing only. Between 1975 and 1987, the total average walleye and white bass catch in the Maumee River was 95,793 fish per year. Lake Erie is used for both sport and commercial fishing. Between 1983 and 1986, the average fish harvest for sport anglers in Maumee Bay and in the area about 10 miles offshore was 836,141 fish per year. Between 1983 and 1986, the average commercial fish harvest in this portion of Lake Erie was 452,432 fish per year. Therefore, the total average harvest for Lake Erie within approximately 15 miles downstream of the site is 1,288,573 fish per year (OEPA 1990).

Additional targets of potential contamination downstream of the TIM Dump site include the Cedar Point National Wildlife Refuge about 10 miles downstream of the site in Lake Erie and the Erie State Game Area about 6 miles downstream of the site in North Maumee Bay (USGS 1965 and 1967).

5.3 SOIL EXPOSURE PATHWAY

Although facility files indicate that a 6- to 12-inch-thick soil and clay cap covers the fill areas of the site, areas of uncovered waste material were observed during the SSI. Therefore, the possibility of surface soil contamination exists. Nearby populations may easily come in contact with on-site soils because facility access is restricted only by a partial fence along the northern border of the site.

Also, a city park, including a picnic area and playground, is located in the former Treasure Island Dump area, and a residence exists on site near the intersection of Ketcham Avenue and Benton Street. Hiking trails and pathways are used by area residents for recreational activities.

5.4 AIR MIGRATION PATHWAY

No odors, airborne particulates, or sources that would be likely to cause a release to air were noted during the investigation. In addition, the site is well vegetated minimizing the potential for a release to air. A PA prepared for the former Treasure Island Dump in 1985 states that underground fires, resulting from incompatible wastes, occurred on site in the past (OEPA 1985). Also, a PA prepared for the former Manhattan Dump in 1986 states that underground fires occurred on site in the 1970s. These fires were reportedly caused by the dumping of alumina oxide powder (OEPA 1986). Therefore, a release to air may have occurred during the on-site fires in the 1970s. Because no air sampling was conducted and the current potential for detecting an air release is low, no releases to air are anticipated to be documented for the TIM Dump site.

REFERENCES

- Bureau of the Census. 1991. Census of Population and Housing. P.L. 94-17 (Data) Ohio (Machine-Readable Data File). Washington, DC.
- Ecology and Environment, Inc. (E&E). 1987. "Site Inspection (SI) Report for Treasure Island Landfill." June 12.
- Federal Emergency Management Agency (FEMA). 1980. Flood Insurance Rate Map for the City of Toledo, Ohio. Community Panel Number 395373 0015A. June 4.
- Findbeiner, Pettis & Strout, Ltd. (FPS). 1984. "Detwiler Creek Comprehensive Ditch Plan."
- Kunkle, George R. 1971. "Report of Investigation, Ground-Water Site Survey-2020 Manhattan Boulevard Toledo, Ohio." May 10.
- Midwest Environmental Consultants, Inc. (Midwest). 1993. Letter Regarding a Monitoring Well Located on Site in the Former Tuber Dump Area. From Michael J. Momenee, Investigations Group Manager. To Kristine Kruk, PRC Environmental Management, Inc. (PRC). March 10.
- Ohio Department of Natural Resources (ODNR). 1971. "Report of Investigation Regarding Manhattan Dump as a Proposed Solid Waste Disposal Site." Prepared by Chris P. Cunningham, Geologist. June 4.
- ODNR. 1993. Facsimile Regarding Endangered and Threatened Species in Toledo, Ohio. From Jerry Gallant, Biologist. To Kristine Kruk, PRC. January 13.
- Ohio Environmental Protection Agency (OEPA). 1985. Preliminary Assessment (PA) of Treasure Island Landfill. September 11.
- OEPA. 1986. PA of Manhattan Dump. August 4.
- OEPA. 1989. "Site Investigation Summary for the Treasure Island-Manhattan Dump (TIM) Site." Prepared by Tina Baker and Jeff Wander. December 28.
- OEPA. 1990. "Maumee River Remedial Action Plan. Stage I Investigation Report." October.
- PRC Environmental Management, Inc. (PRC). 1993a. Record of Telephone Conversation between Kristine Kruk and Bill Schambarger, Toledo Division of Engineering and Construction. February 8.
- PRC. 1993b. Record of Telephone Conversation between Kristine Kruk and Michael Momenee, Midwest Environmental Consultants. February 10.

- PRC. 1993c. Record of Telephone Conversation between Kristine Kruk and Tim Plageman, Wildlife Biologist, Ohio Department of Natural Resources (ODNR). February 10.
- PRC. 1993d. Record of Telephone Conversation between Kristine Kruk and Dale Hertzfeld, Supervisor, Toledo Department of Health and Environment. September 9.
- PRC. 1993e. Record of Telephone Conversation between Kristine Kruk and Lisa Turner, Collingwood Water Bottling Company. September 10.
- PRC. 1993f. Record of Telephone Conversation between Julie Kaiser and Pat Heider, OEPA. September 10.
- Toledo Department of Public Service (Toledo). 1967. Correspondence Regarding Access to the Tuber Dump. March 21.
- Toledo Division of Traffic Engineering. 1975. Correspondence Regarding the License Renewal Request for the S.H. Tuber & Company (Tuber) Dump. June 20.
- City of Toledo (Toledo). 1993a. Real Estate Property Tax Cards for the TIM Dump site.
- Toledo. 1993b. Real Estate Property Tax Cards for the Tuber Dump.
- Toledo. 1993c. Letter Regarding the Storm Water Drainage Ditch at the TIM Dump Site. From Alan Ruffell, Toledo Department of Health and Environment. To Kristine Kruk, PRC. September 1.
- S.H. Tuber and Company. 1975. Correspondence from Samuel H. Tuber to the City of Toledo Regarding the City's Failure to Renew Mr. Tuber's Dumping License. July 17.
- U.S. Department of Agriculture (USDA). 1980. *Soil Survey of Lucas County, Ohio*. Soil Conservation Service. June.
- U. S. Department of Commerce (DOC). 1968. *Climatic Atlas of the United States*. U.S. Government Printing Office. Washington, DC.
- U.S. Department of the Interior (DOI). 1977. National Wetlands Inventory Map of Toledo, Ohio. Fish and Wildlife Service. April.
- U.S. Environmental Protection Agency (U.S. EPA). 1980. Potential Hazardous Waste Site Identification. U.S. EPA Form 2070-8 (5-80). November 25.
- U.S. EPA. 1981. Notification of Hazardous Waste Site. U.S. EPA Form 8900-1. June 11.
- U.S. EPA. 1990. Federal Register, 40 CFR Part 300, Hazard Ranking System, Final Rule. December 14.
- U.S. EPA. 1991. "Investigation-Derived Waste Management Guidance Manual." Office of Emergency and Remedial Response Directive 9345.3-02. May.

U.S. Geological Survey (USGS). 1965. 7.5-Minute Series Topographic Maps of the Toledo and Oregon, Ohio-Michigan, Quadrangles. Photorevised 1980.

USGS. 1967. 7.5-Minute Series Topographic Map of the Reno Beach, Ohio, Quadrangle.

APPENDIX A
POTENTIAL HAZARDOUS WASTE SITE-
SITE INSPECTION REPORT
(FORM 2070-13)

(13 Sheets)



Potential Hazardous Waste Site

Site Inspection Report





Site Inspection Report



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER OHD 980 611 306

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)

Treasure Island - Manhattan Dump

02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER

2020 Manhattan Boulevard

03 CITY

Toledo

04 STATE

OH

05 ZIP CODE

43612

06 COUNTY

Lucas

07 COUNTY CODE

08 CONG. DIST.

09 COORDINATES
LATITUDE

41° 40' 30"

LONGITUDE

83° 31' 30.0"

10 TYPE OF OWNERSHIP (Check one)

☐ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☒ E. MUNICIPAL

☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION

03 / 23-24 / 93
MONTH DAY YEAR

02 SITE STATUS

☐ ACTIVE
☒ INACTIVE

03 YEARS OF OPERATION

Unknown 1975 UNKNOWN
BEGINNING YEAR ENDING YEAR

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☒ B. EPA CONTRACTOR PRC Environmental Management, Inc. (PRC) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR
(Name of Firm) (Name of Firm)
☐ E. STATE ☐ F. STATE CONTRACTOR ☐ G. OTHER
(Name of Firm) (Specify)

06 CHIEF INSPECTOR

Kristine Kruk

08 TITLE

Environmental Scientist

07 ORGANIZATION

PRC

08 TELEPHONE NO.

(312) 946-6480

09 OTHER INSPECTORS

Keith Grezlik

10 TITLE

Geologist

11 ORGANIZATION

PRC

12 TELEPHONE NO.

(312) 856-8700

Trisha Miller

Environmental Scientist

PRC

(513) 241-0149

Traci Poole

Environmental Scientist

PRC

(404) 622-2867

Scott Lloyd

Health Scientist

PRC

(708) 265-4166

13 SITE REPRESENTATIVES INTERVIEWED

Alan Ruffell

14 TITLE

Registered Sanitarian

15 ADDRESS

Toledo Department of Health and Environment,
635 N. Erie Street

16 TELEPHONE NO.

(419) 245-1732

17 ACCESS GAINED BY
(Check one)

☒ PERMISSION
☐ WARRANT

18 TIME OF INSPECTION

9:30 a.m.

19 WEATHER CONDITIONS

Cloudy; rainy; about 40 °F

IV. INFORMATION AVAILABLE FROM

01 CONTACT

Jeanne Griffin

02 OF (Agency/Organization)

U.S. Environmental Protection Agency (EPA)

03 TELEPHONE NO.

(312) 886-3007

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM

Kristine Kruk

05 AGENCY

06 ORGANIZATION

PRC

07 TELEPHONE NO.

(312) 946-6480

08 DATE

08 / 27 / 93
MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER
OHD 980 611 306

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)	02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)	03 WASTE CHARACTERISTICS (Check all that apply)
<input checked="" type="checkbox"/> A. SOLID <input checked="" type="checkbox"/> B. POWDER, FINES <input checked="" type="checkbox"/> C. SLUDGE <input type="checkbox"/> D. OTHER _____ (Specify)	<input checked="" type="checkbox"/> E. SLURRY <input checked="" type="checkbox"/> F. LIQUID <input checked="" type="checkbox"/> G. GAS TONS _____ CUBIC YARDS <u>Unknown</u> NO OF DRUMS _____	<input checked="" type="checkbox"/> A. TOXIC <input checked="" type="checkbox"/> B. CORROSIVE <input type="checkbox"/> C. RADIOACTIVE <input checked="" type="checkbox"/> D. PERSISTENT <input checked="" type="checkbox"/> E. SOLUBLE <input type="checkbox"/> F. INFECTIOUS <input checked="" type="checkbox"/> G. FLAMMABLE <input checked="" type="checkbox"/> H. IGNITABLE <input checked="" type="checkbox"/> I. HIGHLY VOLATILE <input type="checkbox"/> J. EXPLOSIVE <input checked="" type="checkbox"/> K. REACTIVE <input checked="" type="checkbox"/> L. INCOMPATIBLE <input type="checkbox"/> M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	Unknown		Specific types and amounts of wastes have not been documented. However, industrial wastes, including heavy metals, have been documented as having been deposited on site.
OLW	OILY WASTE	Unknown		
SOL	SOLVENTS	Unknown		
PSD	PESTICIDES	Unknown		
OCC	OTHER ORGANIC CHEMICALS	Unknown		
IOC	INORGANIC CHEMICALS	Unknown		
ACD	ACIDS	Unknown		
BAS	BASES	Unknown		
MES	HEAVY METALS	Unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
D004	Arsenic	7440-38-2	Landfilled	21.3	µg/L
D005	Barium	7440-39-3	Landfilled	464	mg/kg
D006	Cadmium	7440-43-9	Landfilled	17.8	mg/kg
	Manganese	7439-96-5	Landfilled	116	µg/L
	Zinc	7440-66-6	Landfilled	90	µg/L
	Dibenzofuran	132-64-9	Landfilled	630	µg/kg
	Phenanthrene	85-01-8	Landfilled	7,500	µg/kg
D009	Mercury	7439-97-6	Landfilled	0.5	mg/kg
	Nickel	7440-02-0	Landfilled	60.5	mg/kg
	4,4'-DDE	72-55-9	Landfilled	45	µg/kg
	4,4'-DDT	50-29-3	Landfilled	27	µg/kg

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

See attached SSI report.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE
OH

02 SITE NUMBER
OHD 980 611 305

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 0

04 NARRATIVE DESCRIPTION

During this sampling investigation, contaminants were detected in groundwater beneath the site. However, background concentrations were not established because groundwater is not used as drinking water in the area.

01 ☒ B. SURFACE WATER CONTAMINATION

02 ☒ OBSERVED (DATE: 03 / 23-24 / 93)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 489,000

04 NARRATIVE DESCRIPTION

Samples documenting contamination of on-site surface water bodies were collected on March 24 and 24, 1993. A contaminated storm sewer drainage ditch originating on site ultimately discharges to the Maumee River about 1 mile downstream of the site. The Maumee River ultimately discharges to Lake Erie about 3 miles downstream of the site.

01 ☒ C. CONTAMINATION OF AIR

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☒ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Unknown

04 NARRATIVE DESCRIPTION

Underground chemical fires due to incompatible wastes reportedly occurred on site in the early 1970s. Fumes from these fires may have affected the surrounding population. The area within the 4 mile target distance limit of the site is heavily populated.

01 ☒ D. FIRE/EXPLOSIVE CONDITIONS

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☒ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Unknown

04 NARRATIVE DESCRIPTION

See comment above

01 ☒ E. DIRECT CONTACT

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Unknown

04 NARRATIVE DESCRIPTION

Hiking trails and pathways were observed in wooded areas throughout the site, and a residence is also located on site. Also, a city park is located in the former Treasure Island Dump area.

01 ☒ F. CONTAMINATION OF SOIL

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: ~ 150

04 NARRATIVE DESCRIPTION

(Acres)

On-site soils have never been tested for contaminants.

01 ☒ G. DRINKING WATER CONTAMINATION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: 489,000

04 NARRATIVE DESCRIPTION

The City of Toledo receives its drinking water from intakes in Lake Erie about 14 miles from the site.

01 ☒ H. WORKER EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Unknown

04 NARRATIVE DESCRIPTION

On-site conditions during years of operation are unknown. No workers are now on site.

01 ☒ I. POPULATION EXPOSURE/INJURY

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: Unknown

04 NARRATIVE DESCRIPTION

Nearby populations may have been affected by fumes from previous chemical fires.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE OH	02 SITE NUMBER OHD 980 611 306
----------------	-----------------------------------

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION
Through contamination of on-site sediments and surface water and through potential contamination of on-site soils, the Maumee River, and Lake Erie, damage to flora, fauna, and the food chain may be possible.

02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

01 ☒ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (Include name(s) of species)
See comment above

02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

01 ☒ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION
See comment II.J above.

02 ☐ OBSERVED (DATE: _____) ☒ POTENTIAL ☐ ALLEGED

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES
(Spills/Runoff/Standing Liquids, Leaking Drums)
03 POPULATION POTENTIALLY AFFECTED: Unknown
04 NARRATIVE DESCRIPTION
No liner, maintained engineered cover, functional and maintained run-on control and runoff management system, or functioning leachate collection and removal system are present at the site.

02 ☒ OBSERVED (DATE: 03/24/93) ☐ POTENTIAL ☐ ALLEGED

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION
Contamination of the storm sewer drainage ditch on site has been documented.

02 ☒ OBSERVED (DATE: 03/24/93) ☐ POTENTIAL ☐ ALLEGED

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION
Allegedly, the concrete recycling facility at the southern border of the former Tuber Dump illegally dumped construction debris in the former Tuber Dump for an unknown period of time until about 1990.

02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☒ ALLEGED

06 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIAL AFFECTED: 489,000

IV. COMMENTS

None

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

See attached SSI report.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER
OHD 880 611 305

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply) <input type="checkbox"/> A. NPDES <input type="checkbox"/> B. UIC <input type="checkbox"/> C. AIR <input type="checkbox"/> D. RCRA <input type="checkbox"/> E. RCRA INTERIM STATUS <input type="checkbox"/> F. SPCC PLAN <input type="checkbox"/> G. STATE (Specify) <input checked="" type="checkbox"/> H. LOCAL (Specify) <input type="checkbox"/> I. OTHER (Specify) <input type="checkbox"/> J. NONE	02 PERMIT NUMBER Unknown	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS City of Toledo
---	---------------------------------	-------------------	-----------------------	-----------------------------------

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply) <input type="checkbox"/> A. SURFACE IMPOUNDMENT <input type="checkbox"/> B. PILES <input type="checkbox"/> C. DRUMS, ABOVE GROUND <input type="checkbox"/> D. TANK, ABOVE GROUND <input type="checkbox"/> E. TANK, BELOW GROUND <input checked="" type="checkbox"/> F. LANDFILL <input type="checkbox"/> G. LANDFARM <input checked="" type="checkbox"/> H. OPEN DUMP <input type="checkbox"/> I. OTHER (Specify)	02 AMOUNT Unknown Unknown	03 UNIT OF MEASURE	04 TREATMENT (Check all that apply) <input type="checkbox"/> A. INCINERATION <input type="checkbox"/> B. UNDERGROUND INJECTION <input type="checkbox"/> C. CHEMICAL/PHYSICAL <input type="checkbox"/> D. BIOLOGICAL <input type="checkbox"/> E. WASTE OIL PROCESSING <input type="checkbox"/> F. SOLVENT RECOVERY <input type="checkbox"/> G. OTHER RECYCLING/RECOVERY <input type="checkbox"/> H. OTHER (Specify)	05 OTHER <input type="checkbox"/> A. BUILDINGS ON SITE 06 AREA OF SITE 150 (Acres)
---	-------------------------------------	--------------------	--	---

07 COMMENTS
None

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)
☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☒ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.
See Part 3, Section M.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☒ YES ☐ NO

02 COMMENTS
Site access is restricted by a fence along a portion of the northern site border only.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

See attached SSI report.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WASTE, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER
OHD 880 811 306

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)	02 STATUS	03 DISTANCE TO SITE															
<table><tr><td>SURFACE</td><td>WELL</td></tr><tr><td>COMMUNITY A. <input checked="" type="checkbox"/></td><td>B. <input type="checkbox"/></td></tr><tr><td>NON-COMMUNITY C. <input type="checkbox"/></td><td>D. <input checked="" type="checkbox"/></td></tr></table>	SURFACE	WELL	COMMUNITY A. <input checked="" type="checkbox"/>	B. <input type="checkbox"/>	NON-COMMUNITY C. <input type="checkbox"/>	D. <input checked="" type="checkbox"/>	<table><tr><td>ENDANGERED</td><td>AFFECTED</td><td>MONITORED</td></tr><tr><td>A. <input type="checkbox"/></td><td>B. <input type="checkbox"/></td><td>C. <input checked="" type="checkbox"/></td></tr><tr><td>D. <input type="checkbox"/></td><td>E. <input type="checkbox"/></td><td>F. <input type="checkbox"/></td></tr></table>	ENDANGERED	AFFECTED	MONITORED	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input checked="" type="checkbox"/>	D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>	A. 14 (mi) B. 3 (mi)
SURFACE	WELL																
COMMUNITY A. <input checked="" type="checkbox"/>	B. <input type="checkbox"/>																
NON-COMMUNITY C. <input type="checkbox"/>	D. <input checked="" type="checkbox"/>																
ENDANGERED	AFFECTED	MONITORED															
A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input checked="" type="checkbox"/>															
D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>															

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☐ A. ONLY SOURCE FOR DRINKING ☒ B. DRINKING (Other sources available)
COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)
☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSABLE

02 POPULATION SERVED BY GROUND WATER 7,000	03 DISTANCE TO NEAREST DRINKING WATER WELL 3 (mi)			
04 DEPTH TO GROUNDWATER -10 (ft)	05 DIRECTION OF GROUNDWATER FLOW Unknown	06 DEPTH TO AQUIFER OF CONCERN NA (ft)	07 POTENTIAL YIELD OF AQUIFER Unknown (gpd)	08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)
One monitoring well is located on site. The monitoring well is constructed of flush-joint, schedule 40 polyvinyl chloride (PVC). The well screen is 7 feet long and has 0.010-inch, machine-slotted openings. The annular space around the well screen is filled with Ottawa-Silica sand to a height of about 2 feet above the top of the screen. Hydrated sodium bentonite fills the remaining annular space to a depth of about 1 foot below existing grade. A locking protector pipe is installed into the concrete at the ground surface. This monitoring well was constructed on October 29, 1992.

10 RECHARGE AREA	11 DISCHARGE AREA
<input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS Unknown	<input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS Groundwater may discharge locally to on-site water bodies

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
Storm sewer ditch on site	<input checked="" type="checkbox"/>	0 (mi)
Maumee River	<input type="checkbox"/>	1 (mi)
Lake Erie	<input type="checkbox"/>	3 (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN	02 DISTANCE TO NEAREST POPULATION									
<table><tr><td>ONE (1) MILE OF SITE</td><td>TWO (2) MILES OF SITE</td><td>THREE (3) MILES OF SITE</td></tr><tr><td>A. -22,562</td><td>B. -54,680</td><td>C. -116,820</td></tr><tr><td>NO. OF PERSONS</td><td>NO. OF PERSONS</td><td>NO. OF PERSONS</td></tr></table>	ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	A. -22,562	B. -54,680	C. -116,820	NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS	0 (mi)
ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE								
A. -22,562	B. -54,680	C. -116,820								
NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS								
03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE -23,535	04 DISTANCE TO NEAREST OFF-SITE BUILDING <0.25 (mi)									

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
The site is located in the City of Toledo; therefore, the area surrounding the site is a densely populated urban area.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WASTE, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER
OHD 980 611 306

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as appropriate)	02 STATUS	03 DISTANCE TO SITE															
<table><tr><td>SURFACE</td><td>WELL</td></tr><tr><td>COMMUNITY A. <input checked="" type="checkbox"/></td><td>B. <input type="checkbox"/></td></tr><tr><td>NON-COMMUNITY C. <input type="checkbox"/></td><td>D. <input checked="" type="checkbox"/></td></tr></table>	SURFACE	WELL	COMMUNITY A. <input checked="" type="checkbox"/>	B. <input type="checkbox"/>	NON-COMMUNITY C. <input type="checkbox"/>	D. <input checked="" type="checkbox"/>	<table><tr><td>ENDANGERED</td><td>AFFECTED</td><td>MONITORED</td></tr><tr><td>A. <input type="checkbox"/></td><td>B. <input type="checkbox"/></td><td>C. <input checked="" type="checkbox"/></td></tr><tr><td>D. <input type="checkbox"/></td><td>E. <input type="checkbox"/></td><td>F. <input type="checkbox"/></td></tr></table>	ENDANGERED	AFFECTED	MONITORED	A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input checked="" type="checkbox"/>	D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>	A. 14 (mi) B. 3 (mi)
SURFACE	WELL																
COMMUNITY A. <input checked="" type="checkbox"/>	B. <input type="checkbox"/>																
NON-COMMUNITY C. <input type="checkbox"/>	D. <input checked="" type="checkbox"/>																
ENDANGERED	AFFECTED	MONITORED															
A. <input type="checkbox"/>	B. <input type="checkbox"/>	C. <input checked="" type="checkbox"/>															
D. <input type="checkbox"/>	E. <input type="checkbox"/>	F. <input type="checkbox"/>															

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)				
<input type="checkbox"/> A. ONLY SOURCE FOR DRINKING <input checked="" type="checkbox"/> B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available) <input type="checkbox"/> C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) <input type="checkbox"/> D. NOT USED, UNUSABLE				
02 POPULATION SERVED BY GROUND WATER 57000		03 DISTANCE TO NEAREST DRINKING WATER WELL 3 (mi)		
04 DEPTH TO GROUNDWATER ~ 10 (ft)	05 DIRECTION OF GROUNDWATER FLOW Unknown	06 DEPTH TO AQUIFER OF CONCERN NA (ft)	07 POTENTIAL YIELD OF AQUIFER Unknown (gpd)	08 SOLE SOURCE AQUIFER <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)
One monitoring well is located on site. The monitoring well is constructed of flush-joint, schedule 40 polyvinyl chloride (PVC). The well screen is 7 feet long and has 0.010-inch, machine-slotted openings. The annular space around the well screen is filled with Ottawa-Silica sand to a height of about 2 feet above the top of the screen. Hydrated sodium bentonite fills the remaining annular space to a depth of about 1 foot below existing grade. A locking protector pipe is installed into the concrete at the ground surface. This monitoring well was constructed on October 29, 1992.

10 RECHARGE AREA	11 DISCHARGE AREA
<input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS Unknown	<input type="checkbox"/> YES <input type="checkbox"/> NO COMMENTS Groundwater may discharge locally to on-site water bodies

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)		
<input checked="" type="checkbox"/> A. RESERVOIR, RECREATION DRINKING WATER SOURCE <input type="checkbox"/> B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES <input type="checkbox"/> C. COMMERCIAL, INDUSTRIAL <input type="checkbox"/> D. NOT CURRENTLY USED		
02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER		
NAME:	AFFECTED	DISTANCE TO SITE
Storm sewer ditch on site	<input checked="" type="checkbox"/>	0 (mi)
Maumee River	<input type="checkbox"/>	1 (mi)
Lake Erie	<input type="checkbox"/>	3 (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN	02 DISTANCE TO NEAREST POPULATION									
<table><tr><td>ONE (1) MILE OF SITE</td><td>TWO (2) MILES OF SITE</td><td>THREE (3) MILES OF SITE</td></tr><tr><td>A. ~22,562</td><td>B. ~54,680</td><td>C. ~116,820</td></tr><tr><td>NO. OF PERSONS</td><td>NO. OF PERSONS</td><td>NO. OF PERSONS</td></tr></table>	ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE	A. ~22,562	B. ~54,680	C. ~116,820	NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS	0 (mi)
ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE								
A. ~22,562	B. ~54,680	C. ~116,820								
NO. OF PERSONS	NO. OF PERSONS	NO. OF PERSONS								
03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE ~23,535	04 DISTANCE TO NEAREST OFF-SITE BUILDING <0.25 (mi)									

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)
The site is located in the City of Toledo; therefore, the area surrounding the site is a densely populated urban area.



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WASTE, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER
OHD 980 611 305

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-8} - 10^{-6} cm/sec ☐ B. 10^{-4} - 10^{-6} cm/sec ☐ C. 10^{-4} - 10^{-3} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE (10^{-4} - 10^{-6} cm/sec) ☐ C. RELATIVELY PERMEABLE (10^{-2} - 10^{-4} cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK

~ 100 (ft)

04 DEPTH OF CONTAMINATED SOIL ZONE

~ 15 (ft)

05 SOIL pH

Unknown

06 NET PRECIPITATION

0 (in)

07 ONE YEAR 24-HOUR RAINFALL

4.34 (in)

08 SLOPE

SITE SLOPE

Undulating %

DIRECTION OF SITE SLOPE

Multiple

TERRAIN AVERAGE SLOPE

%

09 FLOOD POTENTIAL

SITE IS IN 100-YEAR FLOODPLAIN

10

☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (6-acre minimum)

ESTUARINE

A. (mi)

OTHER

B. 0 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

NA (mi)

ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL

RESIDENTIAL AREAS, NATIONAL/STATE PARKS
FORESTS, OR WILDLIFE RESERVES

AGRICULTURAL LANDS
PRIME AG LAND AG LAND

A. < 0.25 (mi)

B. 0 (mi)

C. Unknown (mi)

D. Unknown (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site is somewhat triangular, with railroad easements on the east and west borders. Fill areas are located near the center of the site, and the site perimeter is mostly wooded and overgrown. Urban land surrounds the site. Industries are located north and east of the site, and residences are generally south and west of the site.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

03 ESTIMATED DATE
RESULTS AVAILABLE

06/23/93

06/23/93

06/23/93

No readings above background

(Name of organization or individual)

PRC

EPA FORM 2070-13(7-81)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER OHD 980 611 305

II. CURRENT OWNER(S)

PARENT COMPANY (if applicable)

01 NAME City of Toledo, Ohio			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 525 N. Erie Street			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY Toledo		06 STATE OH	07 ZIP CODE 43624		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	

III. PREVIOUS OWNER(S) (List most recent first)

IV. REALTY OWNER(S) (if applicable; list most recent first)

01 NAME Samuel Tuber			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 2401 Consaul Street			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY Toledo		06 STATE OH	07 ZIP CODE 43624		12 CITY		13 STATE	14 ZIP CODE	
01 NAME William Elliot			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.) 2005 Ketcham Avenue			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY Toledo		06 STATE OH	07 ZIP CODE 43608		12 CITY		13 STATE	14 ZIP CODE	
01 NAME			02 D + B NUMBER		08 NAME			09 D + B NUMBER	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)			04 SIC CODE		10 STREET ADDRESS (P.O. Box, RFD #, etc.)			11 SIC CODE	
05 CITY		06 STATE	07 ZIP CODE		12 CITY		13 STATE	14 ZIP CODE	

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION

01 STATE OH 02 SITE NUMBER
OHD 980 611 306

II. CURRENT OPERATOR (Provide if different from owner)

OPERATOR'S PARENT COMPANY (If applicable)

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.)				04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER											

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATOR'S PARENT COMPANY (If applicable)

01 NAME Orville Bevel			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.) Unknown				04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD											

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.)				04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD											

01 NAME			02 D + B NUMBER		10 NAME			11 D + B NUMBER					
03 STREET ADDRESS (P.O. Box, RFD #, etc.)				04 SIC CODE		12 STREET ADDRESS (P.O. Box, RFD #, etc.)				13 SIC CODE			
05 CITY			06 STATE		07 ZIP CODE		14 CITY			15 STATE		16 ZIP CODE	
08 YEARS OF OPERATION		09 NAME OF OWNER DURING THIS PERIOD											

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)



POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION

01 STATE OH	02 SITE NUMBER OHD 980 611 305
----------------	-----------------------------------

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCES OF INFORMATION *(Cite specific references, e.g., state files, sample analysis, reports)*

APPENDIX B
PHOTOGRAPHIC LOG
(Six Pages)



Photograph No. 1 Sampling Location: SD-02; SD-02D; SW-02; and SW-02D
Orientation: West Date: 03/23/93
Description: Sampling about 200 feet downgradient of the storm sewer outfall, where duplicate samples were collected; note the small, old, concrete outfall in the distance



Photograph No. 2
Orientation: West
Description: Sampling within the storm sewer outfall

Sampling Location: SW-01
Date: 03/23/93



Photograph No. 3
 Orientation: Southwest
 Description: Sampling about 15 feet southeast of the storm sewer outfall

Sampling Location: SD-01
 Date: 03/23/93



Photograph No. 4
 Orientation: North
 Description: Sampling a wetland; note cattails about 8 feet north of the sampling location; sampling location near northwest portion of the former S.H. Tuber Company (Tuber) Dump

Sampling Location: SD-04 and SW-04
 Date: 03/23/93



Photograph No. 5

Orientation: West

Description: Sampling in a wetland; note the cattails about 20 feet west of the sampling location; the sampling location is next to northern border of the Tuber Dump fill area; sampler is in right foreground

Sampling Location: SD-07

Date: 03/24/93



Photograph No. 6

Orientation: South

Description: Sampling near the northeast corner of the pond located along the eastern border of the former Tuber Dump; note floating cattail island in the distance

Sampling Location: SD-06

Date: 03/24/93



Photograph No. 7

Sampling Location: SD-08

Orientation: North

Date: 03/24/93

Description: Sampling in a wetland area in the northeast corner of the former Tuber Dump



Photograph No. 8

Sampling Location: SD-03 and SW-03

Orientation: North

Date: 03/24/93

Description: Sampling in the pond located in the northeast portion of the site; note fallen tree in background



Photograph No. 9

Orientation: West

Description: Sampling surface water in the northwest corner of the site

Sampling Location: SW-05

Date: 03/24/93



Photograph No. 10

Orientation: South

Description: Sampling sediment in the northwest corner of the site

Sampling Location: SD-05

Date: 03/24/93



Photograph No. 11

Orientation: Northeast

Description: Monitoring well in northeast portion of the Tuber fill area

Sampling Location: GW-01

Date: 03/24/93

APPENDIX C
4-MILE RADIUS MAP
(1 Sheet)

SDMS US EPA Region V

Imagery Insert Form

Some images in this document may be illegible or unavailable in SDMS.

Please see reason(s) indicated below:

☐

Illegible due to bad source documents. Image(s) in SDMS is equivalent to hard copy.

Specify Type of Document(s) / Comment

☐

Confidential Business Information (CBI).

This document contains highly sensitive information. Due to confidentiality, materials with such information are not available in SDMS. You may contact the EPA Superfund Records Manager if you wish to view this document.

Specify Type of Document(s) / Comment

☒

Unscannable Material: Oversized X or Format.

Due to certain scanning equipment capability limitations, the document page(s) is not available in SDMS. The original document is available for viewing at the Superfund Records center.

Specify Type of Document(s) / Comment

☐

Other:

ATTACHMENT A
REGIONAL WELL LOGS
(16 pages)

THE OHIO DRILLING CO.
INCORPORATED
MASSILLON, OHIO

1 - 10" Well
300' 00"

DRILLED FOR The Commodore Perry Hotel, Toledo, Ohio HOLE NO. 1 - 10" Well

DRILLED BY Theodore Uodegraff DRILLER COMPLETED August 17, 1935

LOCATION Located on sidewalk on Superior Street

THICKNESS OF STRATA	STRATA	TOTAL DEPTH	HEAVED	WATER FROM SURFACE
70 ft.	Clay	70 ft.		
5 ft.	Sand, gravel	75 ft.		
15 ft.	Sand, gravel, clay	91 ft.		
9 ft.	Sand, gravel, clay, shells	100 ft.		
30 ft.	Gray limestone - hard	130 ft.		
30 ft.	Light limestone	160 ft.		
5 ft.	Limestone, soft light brown	165 ft.		
45 ft.	Limestone - brown	210 ft.		
55 ft.	Limestone - white	265 ft.	- some water	at 220 ft.
75 ft.	Limestone - brownish gray	340 ft.		
60 ft.	Limestone - light gray	400 ft.		
45 ft.	Limestone - bluish gray	445 ft.		
95 ft.	Limestone - light gray	540 ft.		
26 ft.	Limestone - bluish gray	566 ft.	- Strata soft	from 542 to 571
5 ft.	Limestone - brownish gray	571 ft.		
Total depth of hole - 571 ft.				
Well cased with 100 ft. of 10" - 35 lb. steel drive pipe equipped with steel shoe. Static water level 160 ft. from surface, pumping 135 g.p.m. water recedes to 360 ft. from surface. 300' 00"				
Bowls on test pump were set at 360 ft. from surface.				

X= 1,737,100
Y= 727,400
LOCATED

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 112218

County Lucas Township Oregon Section of Township 27
or Lot Number
Owner Paul Papp Address 4025 Corderoy Toledo, Oh.
Location of property Corderoy Rd

CONSTRUCTION DETAILS

Casing diameter 4 1/2 Length of casing 89
Type of screen _____ Length of screen _____
Type of pump Jet
Capacity of pump 350
Depth of pump setting 80

PUMPING TEST

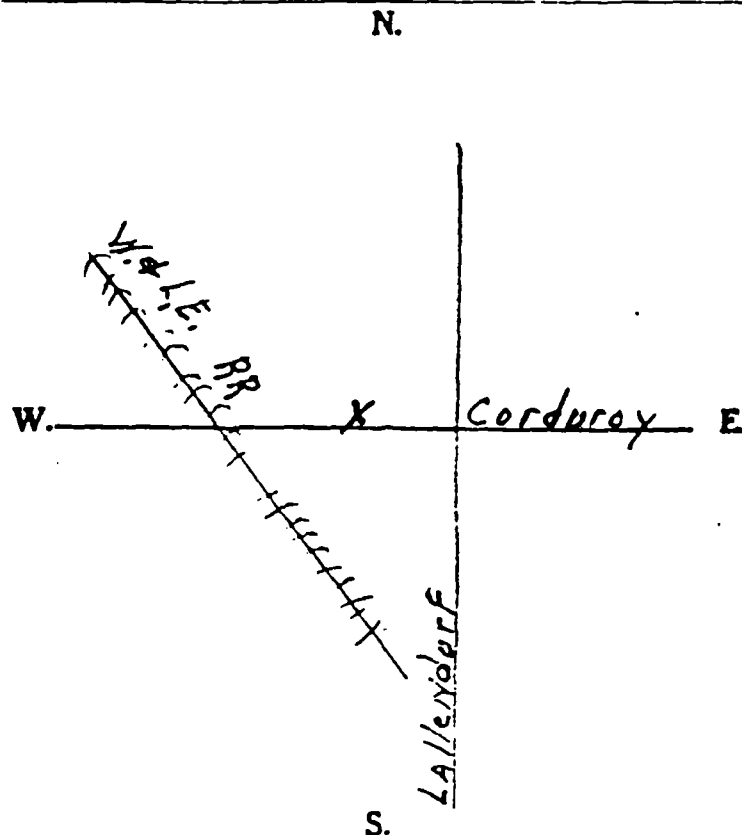
Pumping rate _____ G.P.M. Duration of test _____ hrs
Drawdown 2 ft. Date _____
Developed capacity 1000
Static level—depth to water 55 ft
Pump installed by Driller

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	_____ Ft.
<u>CLAY</u>	<u>0</u>	<u>85</u>
<u>Limestone</u>	<u>85</u>	<u>102</u>

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Quincy Widmer & Son
Address 90 Robt. Widmer
GENOA, OHIO

Date Nov. 18, 1953
Signed Robert W. Widmer

48

WELL LOG AND DRILLING REPORT

State of Ohio
OHIO WATER RESOURCES BOARD
Department of Public Works
553 E. Broad St., Columbus 15, Ohio

No 28934

County LUCAS Township WASHINGTON Section of Township or Lot Number 6
Owner MR. DIELY Address STICKNEY AVE
Location of property 2 BLOCKS OFF BENORE RD.

CONSTRUCTION DETAILS

Casing diameter 4" Length of casing 60'
Type of screen _____ Length of screen _____
Type of pump DURO 1 1/2 H.P.
Capacity of pump 370 G.P.H.
Depth of pump setting 80'

PUMPING TEST

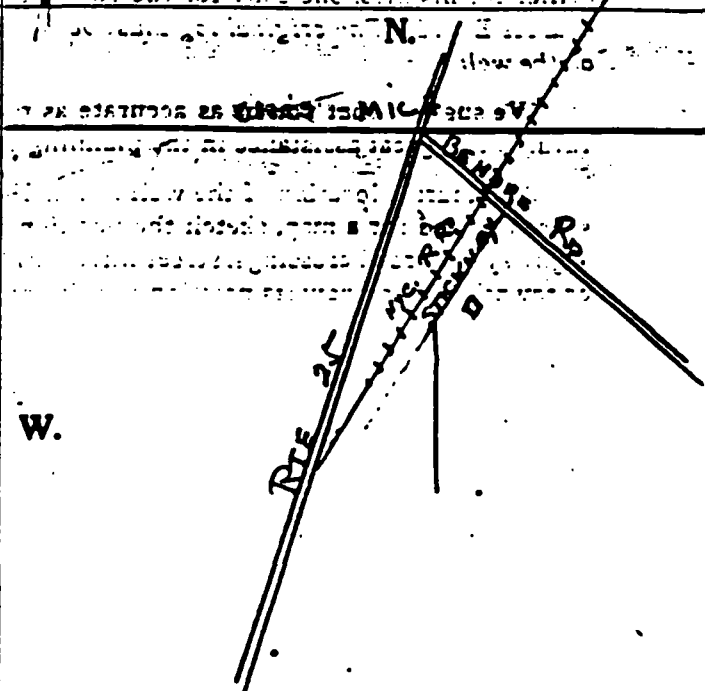
Pumping rate 350 G.P.H. Duration of test 2
Drawdown _____ ft. Date OCT. 1955
Developed capacity _____
Static level of completed well 60' ft.
Pump installed by DRUILLARD PUMP
SALES + SERVICE

WELL LOG

SKETCH SHOWING LOCATION

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>CLAY</u>	<u>0 Feet</u>	<u>50 Ft.</u>
<u>LIMESTONE</u>	<u>50'</u>	<u>87'</u>
<u>WATER AT</u> <u>87'</u>		

Locate in reference to numbered
State Highways, St. Intersections, County roads, et



S.
See reverse side for instructions

Drilling Firm P.G. Druehl & Son, Inc.
Address 5916 N. Detroit Ave.

Date Feb. 14, 1955
Signed H.G. Druehl

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 156559

County LUCAS Township WASHINGTON Section of Township or Lot Number Sec 6
Owner GRVILLE GRIMES Address Tolub OHIO
Location of property 500 ft East of #25 on Benora Rd - and 100 ft South of unnamed street

CONSTRUCTION DETAILS	PUMPING TEST
Casing diameter <u>4 1/2</u> Length of casing <u>46</u>	Pumping rate <u>12</u> G.P.M. Duration of test _____
Type of screen _____ Length of screen _____	Drawdown <u>20</u> ft. Date <u>5/22/55</u>
Type of pump _____	Developed capacity _____
Capacity of pump _____	Static level—depth to water <u>45</u>
Depth of pump setting _____	Pump installed by _____

WELL LOG			SKETCH SHOWING LOCATION
Formations Sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads
<u>Sand</u>	0 Feet	<u>12 Ft</u>	
<u>Clay and gravel</u>	<u>12</u>	<u>43</u>	
<u>Limestone</u>	<u>43</u>	<u>85</u>	

See reverse side for instructions

Drilling Firm E. F. Kimball
Address 227 East St

Date 5/27/55
Signed E. F. Kimball

State of Ohio
OHIO WATER RESOURCES BOARD
Department of Public Works
553 E. Broad St., Columbus 15, Ohio

No 28938

County Lucas Township Ward Section of Township or Lot Number 7
Owner Lucas County Capital Inc Address 1202 Lagrange St.
Location of property 6100 N. Detroit Ave. Lucas, Ohio

CONSTRUCTION DETAILS

Casing diameter 4 1/4" Length of casing 52'
Type of screen _____ Length of screen _____
Type of pump DURO 1/2 H.P. SUBMERSIBLE
Capacity of pump 650 GAL PER HOUR
Depth of pump setting 90'

PUMPING TEST

Pumping rate 650 G.P.H. Duration of test 2
Drawdown NONE ft. Date MARCH 27
Developed capacity 650 G.P.H.
Static level of completed well 60' ft.
Pump installed by P.J. DEWILLARD

WELL LOG

SKETCH SHOWING LOCATION

Formations Sandstone, shale, limestone, gravel and clay	From 0 Feet	To Ft.	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.
CLAY	0	48'	
BLUE LIMESTONE	48'	130'	
WATER AT 130'			

S.
See reverse side for instructions

Drilling Firm P.J. DEWILLARD & Co Date APRIL 12, 1958
Address 5916 N. DETROIT AVE Signed N.J. Dewillard

Signed H. J. Hubbard

WELL LOG AND DRILLING REPORT

PLEASE USE PENCIL
OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 29408

County Lucas Township Toledo *Washington* Section of Township N
Owner Harry Wagner Address 5204 Harvest Lane
Location of property 5656 Detroit Ave on Private Rd

CONSTRUCTION DETAILS	BAILING OR PUMPING TEST
Casing diameter <u>4 1/2</u> Length of casing <u>59</u>	Pumping Rate <u>20</u> G.P.M. Duration of test <u>6</u>
Type of screen <u>none</u> Length of screen	Drawdown <u>6</u> ft. Date <u>Oct 23, 1964</u>
Type of pump <u>Submersible</u>	Static level-depth to water <u>65</u>
Capacity of pump <u>15 GPM</u>	Quality (clear, cloudy, taste, odor) <u>clear</u>
Depth of pump setting <u>85 ft</u>	
Date of completion <u>Oct 23, 1964</u>	Pump installed by <u>Driller</u>

WELL LOG			SKETCH SHOWING LOCATION
Formations Sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.
<u>Clay</u> <u>Gravel & Clay</u> <u>Limestone</u> <u>water at 85 ft</u>	0 Feet <u>25</u> <u>58</u>	<u>25 Ft.</u> <u>58</u> <u>90</u>	<div style="text-align: center;"> <p>N.</p> <p><u>Alexis Rd</u></p> <p>W.</p> <p><u>Detroit Ave</u></p> <p>S.</p> </div>

See reverse side for instructions

Drilling Firm Fred Bull & Son Date Dec 14 1964
Address 4924 Alexis Rd Signed Lee R Bull
Sylvania Ohio

WELL LOG AND DRILLING REPORT

PLEASE USE PENCIL
OR TYPEWRITER

DO NOT USE INK

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

No 33287

County LUCAS Township WASHINGTON Section of Township 12
Owner LUCAS COUNTY ASPHALT Address NORTH DIXIE HWY. US25 TOL
Location of property SOUTH OF ANN ARBOR. CHESAPEAKE RR. EAST OF US25

CONSTRUCTION DETAILS			BAILING OR PUMPING TEST	
Casing diameter <u>4 1/4</u>	Length of casing <u>62</u>		Pumping Rate <u>15</u> G.P.M.	Duration of test <u>3</u>
Type of screen <u>NONE</u>	Length of screen		Drawdown <u>FO 75</u> ft.	Date <u>SEPT-1965</u>
Type of pump			Static level-depth to water <u>62'</u>	
Capacity of pump			Quality (clear, cloudy, taste, odor) <u>CLEAR</u>	
Depth of pump setting				
Date of completion			Pump installed by	
WELL LOG*			SKETCH SHOWING LOCATION	
Formations Sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.	
<u>SAND-CLAY</u>	0 Feet	14' Ft.		
<u>SOFT BLUE CLAY</u>	14'	30		
<u>HARD PAN</u>	30	50		
<u>BLUE CLAY</u>	50	57'		
<u>BROWN-BLUE LIME</u>	57	135		

S.
See reverse side for instructions

Drilling Firm LARSON DRILLING MACH. CO.
Address 211 WEST SCENIA ST. MAURICE OHIO

Date 2-23-66
Signed [Signature]

ORIGINAL

Columbus, Ohio 43224 Phone (614) 466-5344

9

WELL LOG AND DRILLING REPORT

NO CARBON PAPER
NECESSARY -
SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

592049

Monitoring

COUNTY Lucas TOWNSHIP City of Oregon SECTION OF TOWNSHIP 26 11
OWNER Fendessy Enterprises Inc ADDRESS 826 E. Tice Creek Rd, Oregon
LOCATION OF PROPERTY Oregon, Ohio

CONSTRUCTION DETAILS

Casing diameter 4 1/4" Length of casing 98
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

(BAILING OR PUMPING TEST) (Specify one by circling)

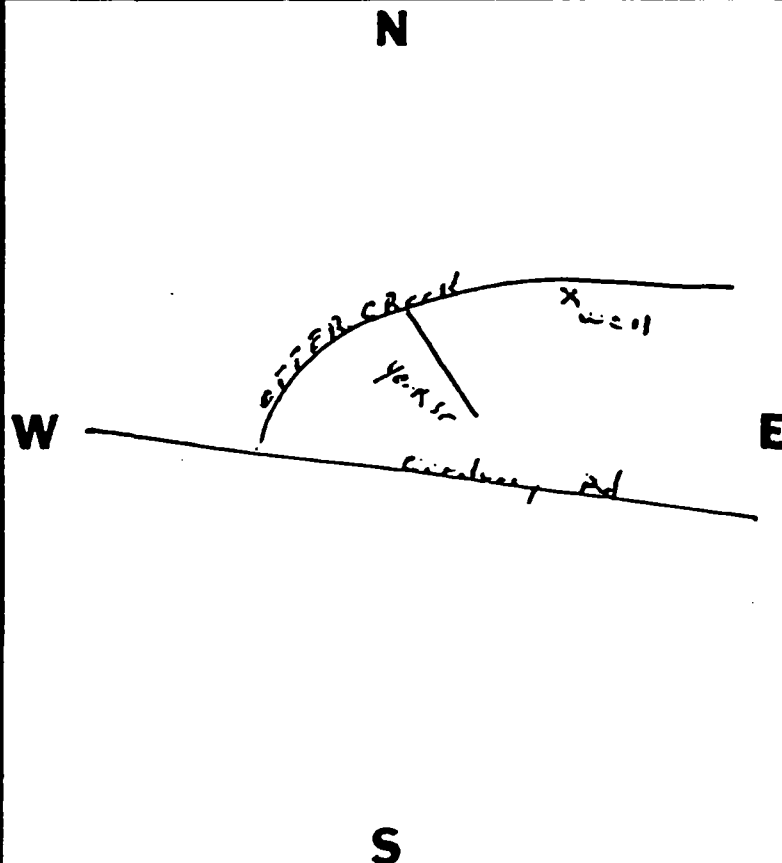
Test rate 16 gpm Duration of test _____ hrs
Drawdown 1 ft Date 10/22/82
Static level (depth to water) 49 ft
Quality (clear, cloudy, taste, odor) _____
Pump installed by _____

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
<u>Yellow Clay</u>	0 ft	10 ft
<u>Blue Clay</u>	10	60
<u>Blue Clay + Hardpan</u>	60	84
<u>Limestone</u>	84	125

SKETCH SHOWING LOCATION

Locate in reference to numbered
state highways, street intersections, county roads, etc.



DRILLING FIRM

DATE 10/22/82

ADDRESS

SIGNED P. H. Hall

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

12

WELL LOG AND DRILLING REPORT

REF # 44
DATE: APR 12 1972
BY: CHD 10519523

NO CARBON PAPER
NECESSARY—
SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 E. Front St., Rm. 818 Phone (614) 469-2445
Columbus, Ohio 43215

No. 393019

(3)

County Lucas Township Toledo Section of Township

Owner Pan American Chemical Corp. Address 600 Mattinger Road, Toledo, Ohio

Location of property 600 Mattinger Road, Toledo Ohio

CONSTRUCTION DETAILS

Casing diameter 8 inch Length of casing 120
Type of screen None Length of screen
Type of pump Domestic Submersible
Capacity of pump 205 G.P.M.
Depth of pump setting 200 ft.
Date of completion 2-17-72

RAILING OR PUMPING TEST (Specify one by drilling)

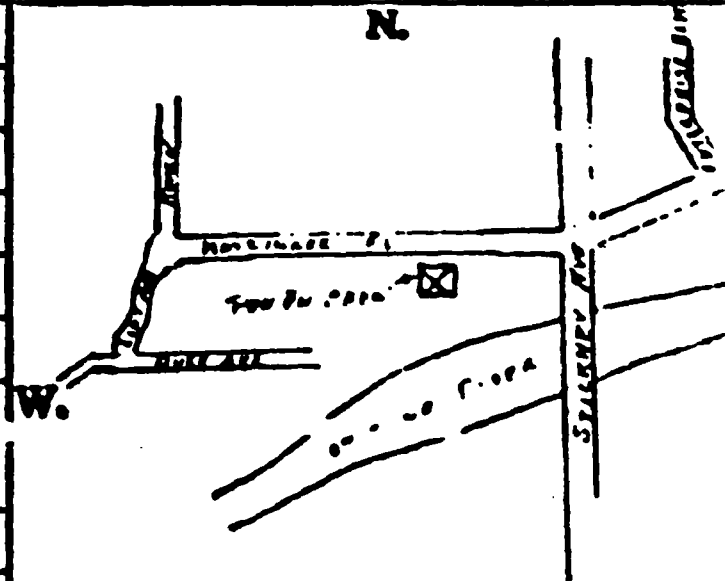
Test Rate 250 G.P.M. Duration of test
Drawdown 57 ft. Date 12/21/71
Static lev. to water
Quality (clear, cloudy, taste, odor)
Pump installed by Dunbar Drilling Inc.

WELL LOGS

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>Yellow Clay seams of sand</u>	<u>0 Feet</u>	<u>7 Ft.</u>
<u>Gray clay</u>	<u>7</u>	<u>68</u>
<u>Stoney hardpan</u>	<u>68</u>	<u>73</u>
<u>Broken line gray, brown & red seam</u>	<u>73</u>	<u>118</u>
<u>Light gray & brown line hard</u>	<u>118</u>	<u>137</u>
<u>Light gray line</u>	<u>137</u>	<u>205</u>
<u>Light brown line</u>	<u>205</u>	<u> </u>
<u>Light gray line</u>	<u>220</u>	<u>226</u>
<u>Light brown line</u>	<u>226</u>	<u>286</u>
<u>Light gray line</u>	<u>286</u>	<u>330</u>
<u>Light brown line</u>	<u>330</u>	<u>391</u>
<u>Light gray line</u>	<u>391</u>	<u>425</u>
<u>Very light gray, almost white</u>	<u>425</u>	<u>563</u>

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, or



Drilling Firm Dunbar Drilling Inc.

Date March 1972

Address 307 E. Front St., Dayton, Ohio

Signature Lee Beahan
Lee Beahan

110

1915

State Fla.

T

1-75

_____ **FILE**

44

ODOR

IN

roads, etc.

544028

E

If not, why?

S.

Date _____

Signed _____

SWANTON OHIO 43558

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

WELL #2

DRILLER'S COPY

USE PENCIL
TYPEWRITER

DO NOT USE INK

State of Ohio
DEPARTMENT OF NATURAL RESOURCES

Division of Water

1562 W. First Avenue
Columbus, Ohio 43212

RECEIVED
NO 344300
EAST WELLED
DEC 1975

County LUCAS Township Waterville Section of Township _____

Owner TOLEDO HOUSE OF CORP. Address SHADLE ROAD

Location of property CORNER OF NEAPOLIS - WATERVILLE ROAD & SHADLE

CONSTRUCTION DETAILS

BAILING OR PUMPING TEST

Casing diameter 5 7/8" Length of casing 32'

Pumping Rate 20 G.P.M. Duration of test _____ hrs.

Type of screen _____ Length of screen _____

Drawdown _____ ft. Date _____

Type of pump _____

Static level-depth to water _____ ft.

Capacity of pump _____

Quality (clear, cloudy, taste, odor) _____

Depth of pump setting _____

Pump installed by _____

Date of completion _____

WELL LOG*

SKETCH SHOWING LOCATION

Formations
Sandstone, shale, limestone,
gravel and clay

From

To

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

SAND

0 Feet

8 Ft.

YELLOW CLAY

8

20'

BLUE CLAY

20

25'

SHALE

25

27

LIMESTONE

27

80

W.

N.

SHADLE

E.

S.

See reverse side for instructions

Drilling Firm _____

Date _____

Address _____

Signed _____

*If additional space is needed to complete well log, use next consecutive numbered form.

MILLER'S COPY

14250

Phone**Phone**

State OHIO

St. _____bra.

Depth to Static Water Head 67'

Casing Cap 31 L L 1 8 m 2

Witness

2

roads, etc.

E.

С'ДМБНТ

If not, why?

Date

Signed

If additional space is needed to complete well log, use next consecutive numbered form.

County LUCAS Township SWANSEA Section of Township 22
 Owner Lucas County Retarded Children's Camp Address Whitehouse, Ohio
Camp Courageous
 Location of property Rt 64 Whitehouse O.

[illegible]

Drilling Firm Dunbar Drilling Inc.
Address 307 Broadway, Swanton, Ohio

Date 8-14-73
Signed Dale R. Dunbar
Dale R. Dunbar, President

If additional space is needed to complete well log, use next consecutive numbered form.

USE PENCIL
OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 309466

County Lucas Township Swanton Section of Township 32
Owner I. A. R. C. Lammey Corp Address Whitehouse
Location of property 2 1/2 mi. S. of Whitehouse

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 67
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

BAILING OR PUMPING TEST

Pumping Rate 15 G.P.M. Duration of test 4 hr
Drawdown 120 ft. Date _____
Static level-depth to water _____
Quality (clear, cloudy, taste, odor) _____
Pump installed by _____

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>Sand</u>	<u>0 Feet</u>	<u>15 Ft.</u>
<u>CLAY</u>	<u>16</u>	<u>48</u>
<u>Hrd PAN</u>	<u>49</u>	<u>67</u>
<u>Limestone</u>	<u>67</u>	<u>150</u>

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.

N.
W. well
Whitehouse
S. 670.
See reverse side for instructions

Drilling Firm Vollmar & Sterling
Address W. 1st Ave. S.W.

Date 1-1-62
Signed Smith Vollmar
LOCATED
4

WELL LOG AND DRILLING REPORT

6X16

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

RECEIVED
No. 95962
AUG 23 1974

County LUCAS Township SPRINGFIELD Section of Township Environmental Protection Agency
Owner A.M. CARDWELL Address 6951 W Bancroft
Location of property ON BANCROFT 1/4 MI WEST OF MCCORD RD

CONSTRUCTION DETAILS

PUMPING TEST

Casing diameter 6" Length of casing 61 1/2
Type of screen NONE Length of screen 0
Type of pump DEEP WELL
Capacity of pump 800 G.P.H.
Depth of pump setting 82'
Pumping rate 10 G.P.M. Duration of test 6
Drawdown 5 ft. Date April 24/52
Developed capacity 10 G.P.M.
Static level—depth to water 68
Pump installed by S.G. KING & SON

WELL LOG

SKETCH SHOWING LOCATION

Formations Sandstone, shale, limestone, gravel and clay	From	To	Locate in reference to numbered State Highways, St. Intersections, County roads, etc.
<u>Sand</u> <u>BLUE CLAY</u> <u>LIMESTONE</u> <u>BLUE SLATE</u>	<u>0 Feet</u> <u>29</u> <u>61</u>	<u>29 Ft.</u> <u>61</u> <u>86 1/2</u>	<u>N.</u> <u>McCord Rd</u> <u>1/4 mi</u> <u>W. Bancroft</u> <u>1/4 mi</u> <u>S.</u> <u>See reverse side for instructions</u>

Drilling Firm S.G. King & Son
Address 1865 Summit St
Toledo, Ohio

Date April 24/52
Signed Bill King

CUSTOMER'S COPY

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Geological Survey
Fountain Square
Columbus, Ohio 43224 : Phone

483474

COUNTY Lucas TOWNSHIP Providence SECTION OF TOWNSHIP 17
OR LOT NUMBER 17
OWNER Eugene Perry ADDRESS Neapolis
LOCATION OF PROPERTY immediately south of Neapolis

CONSTRUCTION DETAILS		BAILING OR PUMPING TEST (specify one by circling)	
Casing diameter <u>6.0</u>	Length of casing <u>70</u>	Test rate <u>15</u> gpm	Duration of test <u>1</u>
Type of screen _____	Length of screen _____	Drawdown <u>103</u> ft	Date <u>4/2/75</u>
Type of pump _____		Static level (depth to water) <u>29</u>	
Capacity of pump _____		Quality (<u>clear</u> cloudy, taste, odor) _____	
Depth of pump setting _____			
Date of completion _____		Pump installed by _____	

[illegible]

DRILLING FIRM Almsted & Foxman
ADDRESS Bowling Green

DATE 4/21/13
SIGNED Kenneth Vollmar

• If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG

Lucas County
Oregon Twp.

DUNBAR DRILLING INC.

SWANTON, OHIO

Customer Phillips Petroleum Company
Address 959 Adams Building - Bartlesville, Oklahoma
Job Name Same
Location New Bulk Station - 3855 York Street
Oregon, Ohio Well No. 1

Strainer: Overall Length _____ Dia. _____ Ft. of Slot _____

Slot Size No. _____ Fittings _____

Mfd. By _____ Material _____

Pipe: No. Ft. 90'7" Size 6 " Wt. _____ lb. Type _____

No. Ft. _____ Size _____ " Wt. _____ lb. Type _____

No. Ft. _____ Size _____ " Wt. _____ lb. Type _____

Drive Shoe: Size 6 " Size _____ " Size _____ "Static Water Level 58 Ft. Completed depth of well 115 ft.

Surging and Developing: Total Time _____ Hrs.

GPM	PUMPING LEVEL	LENGTH OF TEST	TEMPERATURE
* <u>30</u>	<u>75</u> Ft.	<u>1</u> Hrs.	_____ °F.
_____	_____ Ft.	_____ Hrs.	_____ °F.
_____	_____ Ft.	_____ Hrs.	_____ °F.
_____	_____ Ft.	_____ Hrs.	_____ °F.

REMARKS: * Bailer TestDate Started September 10, 1962 Date Completed September 17, 1962

DRILLER	HELPER	HELPER
<u>Larry Dunbar</u>	_____	_____
_____	_____	_____

WELL LOG AND DRILLING REPORT

NO CARBON PAPER
NECESSARY—
SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 E. Front St., Rm. 315 Phone (614) 466-2600
Columbus, Ohio 43215

No. 393019

County Lucas Township Toledo Section of Township _____

Owner Pan American Chemical Corp. Address 600 Matsinger Road, Toledo, Ohio

Location of property 600 Matsinger Road, Toledo Ohio

CONSTRUCTION DETAILS

Casing diameter 8 inch Length of casing 120
Type of screen None Length of screen _____
Type of pump Danwing Submersible
Capacity of pump 205 GPM
Depth of pump setting 200 ft.
Date of completion 2-17-72

BAILING OR PUMPING TEST (Specify one by checking)

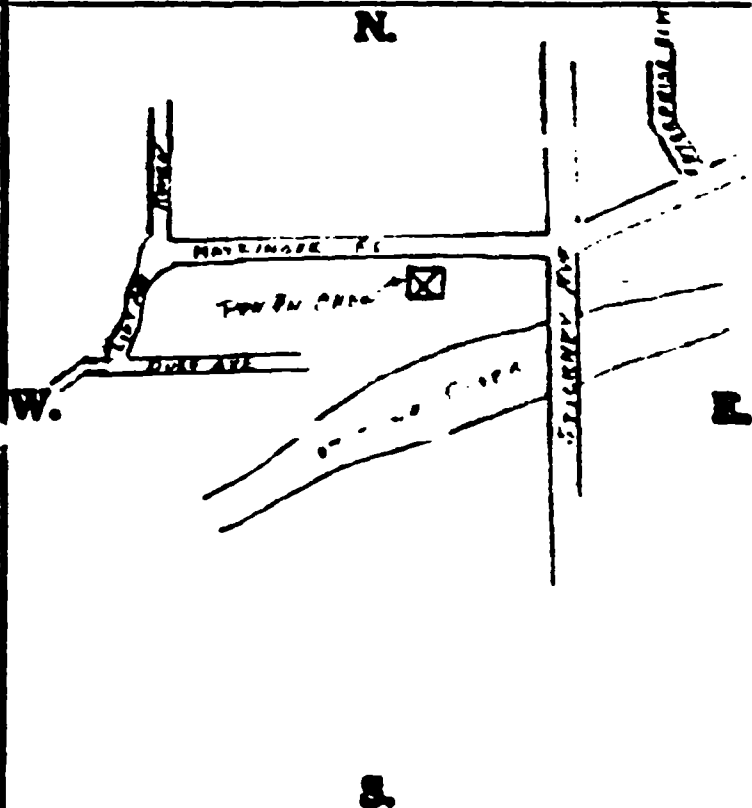
Test Rate 250 G.P.M. Duration of test _____ hrs
Drawdown 57 ft. Date 12/21/71
Static lev. _____ to water _____
Quality (clear, cloudy, taste, odor) _____
Pump installed by Dunbar Drilling Inc.

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
<u>Yellow Clay seams of sand</u>	<u>0 Feet</u>	<u>7 Ft.</u>
<u>Gray clay</u>	<u>7</u>	<u>58</u>
<u>Stoney hardpan</u>	<u>58</u>	<u>73</u>
<u>Broken line gray, brown & sand seam</u>	<u>73</u>	<u>118</u>
<u>Light gray & brown line hard</u>	<u>118</u>	<u>137</u>
<u>Light gray line</u>	<u>137</u>	<u>205</u>
<u>Light brown line</u>	<u>205</u>	<u>220</u>
<u>Light gray line</u>	<u>220</u>	<u>226</u>
<u>Light brown line</u>	<u>226</u>	<u>286</u>
<u>Light gray line</u>	<u>286</u>	<u>330</u>
<u>Light brown line</u>	<u>330</u>	<u>393</u>
<u>Light gray line</u>	<u>393</u>	<u>425</u>
<u>Very light gray, almost white</u>	<u>425</u>	<u>563</u>

SKETCH SHOWING LOCATION

Locate in reference to numbered
State Highways, St. Intersections, County roads, etc.



Drilling Firm Dunbar Drilling Inc. Date March 1972

Address 207 Broadway, Dayton, Ohio Signet Le Buckan

Lee Buckan

HRS Score: 29
Site Name: Treasure Island
CERCLIS ID No.: OHD 98061305

~~SCREENING SITE INSPECTIONS~~
EXPANDED SITE INSPECTIONS**

**TAKEN FROM GUIDANCE FOR PERFORMING SITE INSPECTIONS UNDER
CERCLA INTERIM FINAL DATED SEPTEMBER 1992

~~1)~~ NARRATIVE REPORT INCLUDING

INTRODUCTION

SITE DESCRIPTION/REGULATORY HISTORY

OPERATIONAL HISTORY/WASTE CHARACTERISTICS

PRESENTATION OF ANALYTICAL DATA

PATHWAY DISCUSSIONS

SUMMARY

~~2)~~ PHOTO DOCUMENTATION

~~3)~~ TOPOGRAPHIC MAPS INCLUDING 4-MILE AND 15-MILE RADIUS

~~4)~~ SITE SKETCH

~~5)~~ SITE LOCATION MAP

~~6)~~ WELL LOGS

~~7)~~ OTHER APPENDICES

~~8)~~ REFERENCES

~~9)~~ TRANSMITTAL MEMO OR LETTER INDICATING EVENT QUALIFIER

~~10)~~ PREScore Worksheets

~~11)~~ EPA FORM 2070-13

Reviewer: J. A. [Signature]
Date Approved: 9/27/95